

## Catalogue of type-material of stick-insects housed in the Muséum d'histoire naturelle, Geneva, with descriptions of some new taxa (Insecta: Phasmatodea)

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**Catalogue of type-material of stick-insects housed in the Muséum d'histoire naturelle, Geneva, with descriptions of some new taxa (Insecta: Phasmatodea).** - Type specimens for 157 species-group names of Phasmida have been identified in the collection of the Muséum d'histoire naturelle, Geneva. The names are listed alphabetically, with the number of specimens, sex and locality data. The material includes most species described by Saussure and the majority of those described by Carl; in addition there is material of Bolívar, Brock, Brunner von Wattenwyl, Fritzsche & Gitsaga, Günther, Harz, Kirby, Redtenbacher, Werner and Zompro. *Clitumnus humberti* Carl, 1913 is re-named *Ramulus carli* Zompro nom. n. Lectotypes are designated for *Xera debilis* Redtenbacher, 1906, *Clonistria guatemalensis* Redtenbacher, 1908, *Ramulus humberti* (Saussure, 1861) and *Anophelepis poeyi* Saussure, 1868. One genus and four species are described as new. *Parapodacanthus* Brock gen. n., with the type-species *P. hasenpuschorum* Brock sp. n., is described from Queensland, Australia. Three Philippine species are provisionally placed in the genus *Lonchodes* Gray, 1835: *L. putingmantsa* Zompro sp. n., *L. magayon* Zompro sp. n. and *L. dalawangsungay* Zompro sp. n.; this complex urgently needs a generic revision. The eggs of *Alienobostra godmani* (Redtenbacher, 1908) and *Lonchodes palawanicus* (Carl, 1913) are described and figured for the first time. *Xylodus* Saussure, 1859, formerly synonymized with *Cladomorphus* Gray, 1835, and *Micrarchus* Carl, 1913 formerly synonymized with *Pachymorpha* Gray, 1835, are re-established as valid genera. *Bacteria divergens* Redtenbacher, 1908 is found to be a new synonym of *Phanocloidea muricata* (Burmeister, 1838), and *Ocnophila adulterina* Brunner v. Wattenwyl, 1907 of *Lamponius guerini* (Saussure, 1868). *Prisomera palawanica* Carl, 1915 is transferred to *Stheneboea* Stål, 1875, and *Myronides trilineatus* Carl, 1913 to *Lopaphus* Westwood, 1859.

**Key-words:** Phasmatodea - type material - Geneva Museum of Natural History - new genus - new species - eggs - catalogue.

## INTRODUCTION

The Phasmatodea collection in the Muséum d'histoire naturelle, Geneva, Switzerland (MHNG) contains type specimens for 157 species-group names. The collection is very important for the taxonomist, as it includes most of Saussure's type material (mid 1800's), which was published after Westwood's major catalogue of the order (1859). The vast majority of Carl's (1913, 1915) type specimens are also present, the remainder is in Naturhistorisches Museum, Basel, Switzerland (NHMB). Brunner von Wattenwyl and Redtenbacher (1906-08) had already selected a number of specimens in MHNG as type material. In addition, there are single species described by Bolívar (1888), Günther (1937), Kirby (1904) and Werner (1918) and an invalid neotype designation by Harz (1976). Recently Brock, Fritzsche & Gitsaga and Zompro have added material. The collection is considered to be one of the most important for the taxonomist (Brock, 1999).

The phasmid collection is housed in 93 cabinet drawers with dimensions of 46 x 36 x 6cm, with type material included in the general collection. Additionally, there are three drawers in the separate collection of Harz, which contain phasmids. Although mainly containing specimens named and labelled by curators, the collection includes some unidentified specimens, such as phasmids from the Philippines, only identified by K. Günther to genus level, housed in drawers labelled "Dépôt". There are also a few phasmid specimens in alcohol. Although little research has been made on the collection since Carl's papers (1913, 1915), it has been examined by the following, who have added various labels to specimens: P. D. Brock, M. Hebard, C. F. Moxey and O. Zompro. Moxey placed various 'lectotype' labels on specimens; however, these are not valid, as his 1972 thesis on phasmids from the West Indies was not published. Hennemann also placed various notes, including lectotype labels. These are also not valid before a publication. As both data are invalid at the present state, they are omitted from this catalogue.

## LIST OF TYPE-SPECIMENS

The following is a complete list of type material of Phasmatodea known to be in the MHNG (up to March 2001), according to detailed, independent checks of specimens and literature by both authors.

The systematics of this order are overworked by Zompro recently; therefore a systematic arrangement is pointless and names are arranged alphabetically by species as originally published. The cabinet drawer number is given in square brackets. Data are as recorded on data labels. If they do not agree with the data in the original publication, comments are provided. Several species have not been found in the cabinet drawers, nor by reference to the museum's card index to species, despite detailed searches. Reference is made where specimens have been traced in other collections. The actual combination of each species is mentioned, if possible corresponding to the present state of research.

Museum-codes are as follows:

- ANIC Australian National Insect Collection, CSIRO, Canberra, Australia.
- ANSP Academy of Natural Sciences, Philadelphia, USA.

- BMNH The Natural History Museum, London, England.  
 CUMZ University Museum of Zoology Insect Collection, Cambridge, England.  
 DEIC Deutsches Entomologisches Institut, Eberswalde, Germany.  
 ETHZ Eidgenössische Technische Hochschule, Zurich, Switzerland.  
 HNHM Hungarian Natural History Museum, Budapest, Hungary.  
 ISNB Institut Royal des Sciences Naturelles, Brussels, Belgium.  
 MCSN Museo Civico di Storia Naturale „Giacomo Doria“, Genua, Italy.  
 MHNG Muséum d'histoire naturelle, Geneva, Switzerland.  
 MNHN Muséum National d'Histoire Naturelle, Paris, France.  
 MNMS Museo Nacional de Ciencias Naturales, Madrid, Spain.  
 NHMB Naturhistorisches Museum, Basel, Switzerland.  
 NHMW Naturhistorisches Museum, Vienna, Austria.  
 SMFD Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany.  
 SMNS Staatliches Museum für Naturkunde, Stuttgart, Germany.  
 SMTD Staatliches Museum für Tierkunde, Dresden, Germany.  
 QMBA Queensland Museum, South Brisbane, Queensland, Australia.  
 UMBB Übersee-Museum, Bremen, Germany.  
 ZMAS Zoological Museum, Academy of Science, St. Petersburg, Russia.  
 ZMHB Zoologisches Museum der Humboldt-Universität, Berlin, Germany.  
 ZMUH Zoologisches Museum der Universität Hamburg, Germany.  
 ZMUK Zoologisches Museum der Christian-Albrechts-Universität, Kiel, Germany.  
 ZSMC Zoologische Staatssammlung, München, Germany.

Other abbreviations used:

HT / AT / PT / ST / LT / PLT: Holo- / Allo- / Para- / Syn- / Lecto- / Paralectotype.

Type-information is listed in the following format:

*species-group name* author, year of publication: page [*original genus*]  
 [Number and sexes of types and localities as recorded in original description]  
 Museum [Drawer-number]: Number of specimens.  
 List of types including inscriptions of labels. Different labels are separated by (;).  
 [Valid name]  
 (Name in collection)  
 Comment.

- adulterina* Brunner v. Wattenwyl, 1907: 316 [*Ocnophila*]  
 [♂. Guadeloupe (Mus. Genav.)]  
 MHNG [41]: 1 ♂.  
 HT ♂: Guadeloupe, M. Schramm.  
 [*Lamponius guerini* (Saussure, 1868) **syn. n.**]  
 (In collection as *Ocnophila adulterina* Brunner v. Wattenwyl.)  
*adumbratus* Saussure, 1859: 62 [*Xylodus*]  
 [♀. Portorico.]  
 MHNG [64]: 1 ♀.  
 HT: ♀, Porto Rico, Bresil, M. T. J. Gidet, 189/53

Fig. 1

[*Xylodus adumbratus* Saussure, 1859]

(In collection as *Phibalosoma ceratocephalum* Gray.)

Comment. *Xylodus* Saussure, 1859, with the type-species *Xylodus adumbratus* Saussure, 1859, has been synonymized in error with *Phibalosoma* Gray, 1835, by Redtenbacher (1908: 425). *Phibalosoma* is a synonym of *Cladomorphus* Gray, 1835, synonymized by Kirby (1904: 356). The genitalia of *Xylodus* differ strikingly from those of *Cladomorphus*, therefore *Xylodus* is re-established as a valid genus. Further research is in progress by Zompro.

**aestuans** Saussure, 1861a: 474, pl. 11: 2 [*Bacteria* (*Bacunculus*)]

[♀. Du vieux Calabar.]

MHNG [?]: Not traced.

**annulata** Carl, 1913: 32 [*Dyme*]

[1 ♂. Guyana. Muséum de Genève.]

MHNG [44]: 1 ♂.

HT ♂: Guyana, Saussure.

[*Globocalynda annulata* (Carl, 1913)]

(In collection as *Dyme annulata* Carl.)

**antillarum** Saussure, 1868: 65 [*Bacteria*]

[Insula Gadalupe.]

MHNG [42, 43]: 3 ♂, 4 ♀, 1 egg ex ovipositor.

ST: 1 ♂, 1 ♀, 1 egg ex ovipositor: Guadeloupe, Schramm; 2 ♂, 2 ♀:

Guadeloupe, H. d. Saussure; ♀: Guadeloupe, coll. Guerin.

Further material in ETHZ.

[*Bacteria ferula* (Fabricius, 1793)]

(In collection as *Dyme antillarum* Saussure.)

Comment. *Bacteria ferula* (Fabricius, 1793), was synonymized with *Bacteria crudelis* Westwood, 1859, by Kirby, 1904c: 346, and the latter was synonymized with *Bacteria ferula* (Fabricius, 1793) by Brock, 1998: 33.

**atropurpurea** Carl, 1913: 33 [*Dyme*]

[1 ♀. Espirito-Santo, Brasilia. Muséum de Genève.]

MHNG [42]: 1 ♂.

HT ♂: Espirito Santo, Brasil, ex coll. Fruhstorfer. [Recorded by Carl as ♀]

[*Dyme atropurpurea* Carl, 1913]

**augusta** Carl, 1913: 17 [*Cuniculina*]

[1 ♀. Than-Moi, Tonkin. Muséum de Genève.]

MHNG [28]: 1 ♀.

HT ♀: Tonkin, Than-Moi, Jan.-Juli, Fruhstorfer.

[*Ramulus augusta* (Carl, 1913)]

**azteca** Saussure, 1859: 62 [*Bacteria*]

[♀. Littus mexicanum.]

MHNG [?]: Not traced.

[*Pseudosermyle azteca* (Saussure, 1859)]

**baculus** Saussure, 1859: 62 [*Bacteria*]

[♀. America.]

MHNG [45]: 1 ♀.

HT ♀: Amer. mer, 475/20.

(In collection as *Bacunculus baculus* Saussure.)

**bedoti** Redtenbacher, 1908: 388, pl. 19: 1 [*Rhaphiderus*]

[♂. Tonking (Mus. Genf, Coll. m.)]

MHNG [54]: 1 ♂.

ST: 1 ♂, Tonkin.

Further type-material in NHMW.

[*Rhaphiderus bedoti* Redtenbacher, 1908]

**biceps** Redtenbacher, 1908: 451 [*Pharnacia*]

[♂ ♀. Assam (Mus. Stuttgart); Tonking (Mus. Paris); Java (Mus. Genf, Mus. Budapest, Mus. Berlin, Coll. m., Mus. Ak. Petersburg, Mus. Brüssel, Mus. Paris, Mus. Hamburg, Hofmus. Wien)]

MHNG [69]: 2 ♂, 2 ♀.

ST: 2 ♂, Java, Or., Passeroean 622/20; 2 ♀, Java.

Further type-material present in ISNB, NHMW, SMNS, ZMAS, ZMHB, ZMUH.

[*Pharnacia biceps* Redtenbacher, 1908]

**bicolor** Carl, 1913: 14 [*Clitumnus*]

[2 ♂. Than-Moi, Tonkin.]

MHNG [25]: 2 ♂.

ST: 2 ♂: Tonkin, Than-Moi, Jan.-Juli, Fruhstorfer.

[*Ramulus bicolor* (Carl, 1913)]

(In collection as *Clitumnus bicolor* Carl.)

**bicolor** Günther, 1937a: 90, pl. 1: 3 [*Neopromachus*]

[9 ♂♂, Torricelli-Gebirge, 700-900m]

Type-series: 9 ♂♂.

MHNG [40]: 2 ♂.

ST: 1 ♂, Kais. Wilhelmsland, Torricelli Gebirge, Dr. Schlaginhaufen, 780 m, 1910 1; 1 ♂, Kais. Wilhelmsland, Torricelli Gebirge, Dr. Schlaginhaufen, 720 m, 1910 1.

Further type-material in SMTD.

[*Neopromachus pachynotus bicolor* Günther, 1937]

**bifasciatus** Redtenbacher, 1906: 102 [*Eucles*]

[♀. Costa-Rica (Mus. Genf).]

MHNG [10]: 1 ♀.

HT: ♀, Costa Rica, Amer. Centr., Biolley.

Also a non-type ♂ described by Carl (1913: 7) present.

[*Eucles bifasciatus* Redtenbacher, 1906]

**biolleyi** Carl, 1913: 9 [*Prisopus*]

[1 ♂. La Laguna, Carillo, 1000m, Costarica. (P. Biolley leg.)]

MHNG [16]: 1 ♂.

HT ♂: Costa Rica, La Laguna, Chemin de Carillo, 1000 m, Biolley.

[*Prisopus biolleyi* Carl, 1913]

**borneensis** Carl, 1913: 44, pl. 1: 4, 5 [*Echinoclonia*]

[1 ♀. Brunei, Borneo sept. Muséum de Genève.]

Fig. 15

MHNG [76]: 1 ♀.

HT ♀: Borneo, Staudinger.

[*Parastheneboea laetior* (Brunner v. Wattenwyl, 1907), synonymized by Günther, 1933: 260.]

(In collection as *Acanthocleon borneense* Carl.)

Comment. "*Acanthocleon*" is an unpublished name and therefore invalid.

***brevipes*** Redtenbacher, 1908: 441, pl. 21: 4a, b [*Stephanacris*]

[♂ ♀. Neu-Guinea (Mus. Budapest; Coll. m., Coll. Staudinger).]

MHNG [67]: 1 ♂, 1 ♀.

ST (?): 1 ♂, 1 ♀, N. Guinea, Biro 1899, Sattelberg, Huon Golf.

Possibly syntypes from the Staudinger-collection, the status is unclear. The data are the same as for part of the type-material in NHMW and may have originated from HHM. Brunner and Redtenbacher did not label all material, sometimes labels have been taken off or replaced subsequently. Material also present in ZMUH.

[*Stephanacris brevipes* Redtenbacher, 1908]

***brevitarsus*** Carl, 1913: 38, pl. 1: 6 [*Antillophilus*]

[1 ♀. Guadeloupe. Muséum de Genève.]

MHNG [49]: 1 ♀.

HT ♀: Guadeloupe, Saussure.

[*Lamponius guerini* (Saussure, 1868), synonymized by Langlois & Lelong, 1997: 49.]

***burkartii*** Saussure, 1868: 65 [*Bacteria*]

[Mexico.]

MHNG [?]: Not traced.

[*Phanocles burkartii* (Saussure, 1868)]

***capitata*** Brunner v. Wattenwyl, 1907: 315 [*Ocnophila*]

[♂. Peru (Mus. Genav.).]

MHNG [41]: 5 ♂.

ST: 5 ♂, Lima, Perou, Anc. coll.

Also undescribed ♀ are present, with same data, not treated in original publication.

[*Ocnophila capitata* Brunner v. Wattenwyl, 1907]

***carinulatus*** Saussure, 1868: 63 [*Bacillus*]

Figs 2-4

[Ceylon ?]

MHNG [30]: 2 ♀, 2 ♀ nymphs.

ST: 2 ♀, 2 ♀ nymphs, Malabar.

[*Gratidia carinulata* (Saussure, 1868)]

***ceylonica*** Saussure, 1868: 67 [*Anophelepis*]

Fig. 5

[Ceylon.]

MHNG [76]: 1 ♀.

HT: ♀, Ceylon, M. H. de Saussure.

[*Paramenexenus ceylonicus* (Saussure, 1868)]

***ceylonica*** Saussure, 1868: 69 [*Necroschia*]

[Ceylon.]

MHNG [90]: 8 ♂, 1 ♀.

ST: 8 ♂, 1 ♀, Ceylon, Mr. Brunner d. W., 609/56.

[In collection as *Sipylloidea ceylonica* (Saussure)]

[*Necroschia ceylonica* Saussure, 1868]

**ceylonicus** Saussure, 1868: 66 [*Lonchodes*]

[Ceylon.]

MHNG [25]: 2 ♂.

ST: 2 ♂, Ceylon, Nitner.

[*Ramulus ceylonicus* (Saussure, 1868)]

[In collection as *Clitumnus ceylonicus* (Saussure)]

**circe** Redtenbacher, 1908: 347 [*Canachus*]

[♂ ♀. Neu-Caledonien (Mus. Genf); Singapore (?) (Hofmus. Wien).]

MHNG [47]: 1 ♀.

ST: 1 ♀, Nov. Caledonie, Ozeanie.

[*Paracanachus circe* (Redtenbacher, 1908)]

Further type-material in NHMW.

**claraziana** Saussure, 1868: 64 [*Anisomorpha*]

[♀. Ager Argentinus (la Plata)]

MHNG [64]: 1 ♂.

HT ♂: Rio Chulat, Rep. Arg., S. Claraza. [Saussure's ♀ (nymph ?) is a ♂]

[*Agathemera claraziana* (Saussure, 1868)]

[In collection as *Agathemera pardalina* (Westwood, 1859)]

**composita** Carl, 1913: 42 [*Achrioptera*]

[1 ♂ „Madagascar“ (?). Muséum de Genève.]

MHNG [66]: 1 ♂.

HT ♂: No label.

[*Achrioptera composita* Carl, 1913]

**continentalis** Carl, 1913: 18 [*Entoria*]

[1 ♀. Tonkin (Than-Moi). Muséum de Genève.]

MHNG [29]: 1 ♀.

HT ♀: Tonkin, Than-Moi, Jan.-Juli, Fruhstorfer.

[*Entoria continentalis* Carl, 1913]

**cornuta** Saussure, 1861b: 128. [*Bacteria*]

[Mexico calida.]

MHNG [90]: Not traced.

**coronata** Carl, 1913: 34 [*Calynda*]

[1 ♀, San José, Costarica (1161m); 1 ♀, San Carlos, Costarica (250m). (P. Biolley leg.). Muséum de Genève.]

MHNG [44]: 2 ♀.

ST: ♀: Costa Rica, San Jose, 1161 m; ♀: San Carlos, 250 m, Biolley.

[*Calynda coronata* Carl, 1913]

**coulonianum** Saussure, 1868: 66 [*Bactridium*]

[Nova Hollendia.- (Specimen e Chile?)]

MHNG [9]: 1 ♀.

HT ♀: Nova Holl.

[*Heteronemia mexicana* Gray, 1835, synonymized by Zompro, 2001b.]

(In collection as *Donusa proluxa* Stål.)

**cubaensis** Saussure, 1869: 159 [*Bacteria*]

[♀. L'ille de Cuba.]

MHNG [?]: Not traced.

[*Bacteria cubaensis* Saussure, 1869]

**cubensis** Saussure, 1868: 68 [*Haplopus*]

[♀. Cuba.]

MHNG [64]: 1 ♀.

HT ♀: Cuba.

[*Aplopus cubensis* Saussure, 1868]

**cubensis** Saussure, 1868: 69 [*Phasma*]

Figs 6, 59

[No locality mentioned.]

MHNG [14]: 4 ♂.

ST: 2 ♂: Cuba, H. d. Saussure; 2 ♂: Cuba, acheté à M. Poey.

[*Alloephasma poeyi* (Saussure, 1868), synonymized by Redtenbacher, 1906: 127]

**cubensis** Saussure, 1868: 67 [*Phybalosoma*]

[♂. Cuba.]

MHNG [61]: 1 ♂.

HT ♂: Cuba, H. d. Saussure.

[In collection as *Bacteria cubensis* (Saussure)]

**cultratolobatus** Brunner v. Wattenwyl, 1907: 273 [*Carausius*]

[Brunei in ins. Borneo (Mus. Genav.).]

MHNG [36]: 1 ♀.

HT: ♀, Brunei, E Borneo, Staudinger.

[*Carausius cultratolobatus* Brunner v. Wattenwyl, 1907]

**dalawangsungay** Zompro sp. n. [*Lonchodes*]

Figs 43-45, 57

MHNG [39bis]: 1 ♀.

HT: ♀, Philippinen, Luzon, Imugan.

Description below.

**debilis** Redtenbacher, 1906: 146 [*Xera*]

[♂ ♀. Merida, Venezuela (Coll. m., Mus. Budapest): Columbien (Mus. Berlin).]

MHNG [16]: 1 ♂, 1 ♀.

PLT: 1 ♂, 1 ♀, Venezuela, Briceno, Merida; ex Mus. Hungar.

These specimens originate from the HNHM-collection before it was destroyed by fire in 1956.

MNHU [73/5]: 1 ♀.

PLT: 1 ♀, *Xera inermis* Redt.\* n. sp. Redtenbacher / Brunner det.; 788; Columb. Mor.

NHMW [7/34]: 5 ♂, 4 ♀.

LT, by present designation: ♂. Coll. Br.v.W. Merida Venezuela; det. Redtenb.

*Xera debilis*: PLT: ♀. 5 eggs ex abdomen, Coll. Br.v.W. Merida Venezuela; det. Redtenb. *Xera debilis*.

[*Xera debilis* Redtenbacher, 1906]

The LT designation is part of a revision of the genera of Phasmatodea: Areolatae by O. Zompro and will support nomenclatural stability.

*deplanata* Redtenbacher, 1908: 411 [*Bostra*]

[♀. Cuba (Mus. Genf).]

MHNG [60]: 1 ♀.

HT: ♀, Cuba, M. Poey, 620/88.

[*Phanocloidea* (?) *deplanata* (Redtenbacher, 1908)]

*divergens* Redtenbacher, 1908: 418 [*Bacteria*]

[Cayenne (Mus. Genf. Mus. Paris).]

MHNG [61]: 1 ♀.

ST: ♀, 2 eggs, Cayenne, Prudhomme, 620/85.

Further type-material in MNHN.

[*Phanocloidea muricata* (Burmeister, 1838), n. syn.]

*dohertyi* Carl, 1913: 46 [*Paroxyartes*]

Fig. 7

[1 ♂. Jobi. (Doherty leg.). Muséum de Genève.]

MHNG [76]: 1 ♂.

HT ♂: Jobi, Doherty, ex coll. Fruhstorfer.

[*Paroxyartes dohertyi* Carl, 1913]

*dubius* Carl, 1915: 185 [*Asprenas*]

[Neu-Caledonien. Mt. Ignambi, 29.IV.1911, 1 ♂, 1 ♀; Mt. Panié, 26.VI.1911, 1 ♂.]

MHNG [49]: 1 ♂.

ST ♂: 26.6.11, Panie Wald.

Further material in NHMB.

[*Asprenas dubius* Carl, 1915]

*effeminatus* Carl, 1913: 37 [*Asprenas*]

[1 ♂. Nova Caledonia. Muséum de Genève.]

MHNG [49]: 1 ♂.

HT: ♂: Nlle. Caledonie, Mr. Rolle.

[*Asprenas effeminatus* Carl, 1913]

*emortualis* Saussure, 1859: 61 [*Bacteria*]

[♀. Bahia.]

MHNG [59]: 1 ♀.

HT ♀: Bahia, Bresil.

[In collection as *Bactridium emortuale* (Saussure)]

*exornata* Redtenbacher, 1908: 405 [*Clonistria*]

[♂ ♀. Cuba. (Mus. Genf).]

MHNG [60]: 2 ♂, 2 ♀.

ST: 2 ♂, Cuba, Mr. H. d. Saussure; 2 ♀, Cuba.

[*Clonistria exornata* Redtenbacher, 1908]

*fecundus* Carl, 1915: 189, figs 3, 4 [*Brachyrhamphus*]

Figs 8-9

[Neu-Caledonien: Mt. Ignambi, 29.IV.1911, ♀ ad., ♂ ad.; Mt. Panié (Wald), ca. 500m, 26.VI.1911, ♀ ad.; Tao, 25.VI.1911, ♀ ad., ♂ ad.; Tiouaca-Tal, 23.VI-II.1911, ♀ juv.; Ciu, oberh. Canala, ca. 300m, 3.II.1912, ♂ ad.; Mt. Canala, ca. 750m, 4.XI.1911, ♀ juv.; Ngoi-Tal, 15.IX.1911, ♂ ad.]

MHNG [48]: 1 ♂, 1 ♀ nymph.

ST: ♂: Ngoyi, 15.9.11; ♀, nymph: Mt. Kanala, 4.11.11. [A second ♀ is present, not recorded by Carl: „Ilegrope, 3.3.12“]

Further material in NHMB.

[*Carlius fecundus* Carl, 1915]

***freygessneri*** Redtenbacher, 1908: 421 [*Bacteria*]

[♀. Guatemala (Mus. Genf).]

MHNG [61]: 1 ♀.

HT: ♀, Guatemala, Mr. H. d. Saussure, 2/14.

[*Phanocloidea freygessneri* (Redtenbacher, 1908)]

***fritzschei*** Zompro, 2000: 53, figs 9-21 [*Gratidia*]

[Holotypus (♂): Nakhon Ratchasima, Amphoe Pak Chong, Thanon Thannarat km 7, 300m, 101°24'50" E 14°36'50" N, 18.X.1997]. Data for paratypes, see Zompro (2000).

MHNG [30]: 1 ♂, 1 ♀.

PT: 1 ♂, Nakhon Ratchasima, Amphoe Pak Chong, Thanon Thannarat km 7, 300m, 101°24'50" E 14°36'50" N, auf *Acalypha wilkesiana* Muell., 17.XII.1997, leg. I.Fritzsche; 358-63 Coll. O. Zompro; 1 ♀, Nakhon Ratchasima, Amphoe Pak Chong, Thanon Thannarat km 6, 325m, 101°21' E 14°32' N, 16.I.1998, leg. I. Fritzsche; 358-117 Coll. O. Zompro.

Further type-material in BMNH, CUMZ, DEIC, MCSN, MNHN, NHMW, OX-UM, SMFD, SMTD, UMBB, ZMHB, ZMUH, Coll. I. Fritzsche, Coll. F. Hennemann, Coll. O. Zompro, affiliated with ZMUK.

[*Gratidia fritzschei* Zompro, 2000]

***fruhstorferi*** Carl, 1913: 29 [*Dixippus*]

[2 ♀. Insula Bawean (H. Fruhstorfer leg.). Muséum de Genève.]

MHNG [38]: 2 ♀.

ST: 2 ♀: Bawean, Regenzeit, Fruhstorfer.

[*Carausius fruhstorferi* (Carl, 1913)]

[In collection as *Phasgania fruhstorferi* (Carl)]

***fulvescens*** Saussure, 1868: 67 [*Anophelepis*]

[Insula Nouka-Hiva.]

MHNG [?]: Not traced.

[*Graeffea fulvescens* (Saussure, 1868)]

***glaber*** Redtenbacher, 1906: 167 [*Leocrates*]

[Sumatra (Mus. Genf).]

MHNG [19]: 1 ♀.

HT: ♀, Sumatra, Schneider.

[*Haaniella glaber* (Redtenbacher, 1906)]

***godeffroyi*** Redtenbacher, 1908: 360, pl. 16: 12 [*Nisyrius*]

[♀. Tongatabu, Freundschaftsinseln (Mus. Genf).]

MHNG [49]: 1 ♀.

HT: ♀, Tongatabu, Oceanie, H. d. Saussure.

[*Cotylosoma godeffroyi* (Redtenbacher, 1908)]

- godmani* Redtenbacher, 1908: 411 [*Bostra*] Figs 33-34  
 [♀. Nicaragua (Coll. m.), Costa Rica (Mus. Genf), Guatemala (Coll. Godman).]  
 MHNG [60]: 1 ♀  
 ST: 1 ♀, 1 egg: Costa Rica, Amer. cent., Mr. P. Biolley, 620/76.  
 Further type-material in BMNH and NHMW.  
 [*Alienobostra godmani* (Redtenbacher, 1908)]
- guadeloupensis* Redtenbacher, 1908: 404 [*Clonistria*]  
 [♂. Guadeloupe (Coll. m.), Guatemala (Mus. Stuttgart). ♀: Guadeloupe (Mus. Genf).]  
 MHNG [60]: 2 ♀.  
 ST: 2 ♀, Guadeloupe, Mr. H. d. Saussure.  
 Further type-material in NHMW and SMNS and MNHN.  
 [*Clonistria guadeloupensis* Redtenbacher, 1908]
- guatemalensis* Redtenbacher, 1908: 405 [*Clonistria*] Figs 10-11  
 [♂. Guatemala (Mus. Genf).]  
 MHNG [60]:  
 LT, by present designation: ♂, Guatemala, Mr. H. d. Saussure, 2/14.  
 PLT: ♂, Guatemala, Mr. H. d. Saussure, 3/28.  
 Further type-material in ZMHB.  
 [*Clonistria guatemalensis* Redtenbacher, 1908]  
 The two specimens belong to different genera. The LT designation is part of a revision of South American genera of Phasmatodea by O. Zompro and will support nomenclatural stability.
- guerini* Saussure, 1868: 64 [*Pygirhynchus*]  
 [Insula Guadalupe.]  
 MHNG [50]: 2 ♂, 1 ♂ nymph, 4 ♀.  
 ST: 2 ♂, 1 ♂ nymph, 4 ♀: Guadeloupe, H. d. Saussure.  
 [*Lamponius guerini* (Saussure, 1868)]
- hasenpuschorum* Brock gen. n., sp. n. [*Parapodacanthus*]  
 MHNG : 1 ♂.  
 PT: Cairns, "Nov. Holl".  
 HT and further PT in QMBA, ANIC and Coll. P. D. Brock.  
 Description below.
- horridum* Carl, 1913: 3 [*Acanthoclonia*]  
 [1 ♂. Banos, Ecuador. Muséum de Genève.]  
 MHNG [4]: 1 ♂.  
 HT ♂: Baños, Ecuador.  
 [*Acanthoclonia horrida* Carl, 1913]
- humberti* Saussure, 1861a: 472 [*Bacillus (Ramulus)*]  
 [♂ ♀. L'ille de Ceylan, par M. A. Humbert.]  
 MHNG [29]: 1 ♂, 2 ♀.  
 LT, by present designation: 1 ♂, PLT : 2 ♀: Trincomalie, Ceylon, Voyage Humbert.  
 [*Ramulus humberti* (Saussure, 1861)]  
 [In collection as *Dubreulia humbertiana* (Saussure).]

Comment. This is the type-species of *Ramulus* Saussure, 1861. Most of the species belonging to this genus erroneously have been treated as members of *Baculum* Saussure, 1861 (Type: *Baculum ramosum* Saussure, 1861), a monotypic genus from Brazil. See also comments under *ramosum*. To support stability in the use of the names in the future, a lectotype is here designated for *R. humberti*.

***humberti*** Carl, 1913: 13 [*Clitumnus*]

[1 ♂. Ceylan.]

MHNG [25]: 1 ♂.

HT ♂: Ceylon, Schilling, ex coll. Fruhstorfer.

[*Ramulus carli* Zompro, **nom. n.**]

Comment. This species is a member of *Ramulus* Saussure, 1861, type-species: *Ramulus humberti* (Saussure, 1861), and therefore requires a new name.

***humbertiana*** Saussure, 1868: 68 [*Necroscia*]

[Ceylon.]

MHNG [87]: 2 ♀.

ST: 2 ♀: Ceylon, Humbert.

[*Sosibia humbertiana* (Saussure, 1868)]

***imbellis*** Brunner v. Wattenwyl, 1907: 312 [*Ocnophila*]

[♀. ? (Mus. Genav.)]

MHNG [41]: 3 ♀.

ST: 3 ♀: ♂ Amerique, coll. Guerin.

Comment. The specimens are labelled as ♂, but all three type specimens are in fact ♀.

***impennis*** Carl, 1913: 36 [*Asprenas*]

[1 ♀. Nova Caledonia. Muséum de Genève.]

MHNG [49]: 1 ♀.

HT ♀: Nlle. Caledonie, Mr. Rolle.

[*Asprenas impennis* Carl, 1913]

Comment. A ♂ with same data also present, neither recorded nor described by Carl.

***incerta*** Carl, 1913: 54 [*Aruanoidea*]

[3 ♂. Than-Moi, Tonkin. Muséum de Genève.]

MHNG [86]: 3 ♂.

ST: 3 ♂: Tonkin, Than-Moi, Jan.-Juli, Fruhstorfer.

[*Necroscia incerta* (Carl, 1913)]

***inconspicuus*** Brunner v. Wattenwyl, 1907: 334 [*Bacunculus*]

[♂. Costa Rica (Mus. Genav., Coll. m.), Mexico (Mus. Paris).]

MHNG [45]: 2 ♂.

ST: 2 ♂. Costa Rica, Amer. Centr., P. Biolley.

Further type-material in NHMW and MNHN.

[*Pseudosermyle inconspicua* (Brunner v. Wattenwyl, 1907)]

***ingens*** Redtenbacher, 1908: 453 [*Pharnacia*]

[♀. Malabar, Meppadi (Mus. Genf); Ober-Tenasserim 4000-6000' (Wood-Mas.).]

MHNG [69]: 1 ♀.

ST: ♀, Meppadi, Malabar, Mr. Atzenwiller.

Further type-material in the Wood-Mason collection, which is now possibly in New Delhi, India.

[*Pharnacia ingens* Redtenbacher, 1908]

*ingerens* Brunner v. Wattenwyl, 1907: 206 [*Cuniculina*]

[♀. Java (Mus. Genav.).]

MHNG [26]: 1 ♀.

HT: ♀, Java, Fruhstorfer.

[*Ramulus ingerens* (Brunner v. Wattenwyl, 1907)]

*insignis* Redtenbacher, 1906: 90 [*Paranisomorpha*]

Fig. 14

[♂ ♀. Costa Rica, Zentral-Amerika (Mus. Genf [♂], Coll. m, Coll Goudot [♀]).]

MHNG [8]: 1 ♀.

♀, syntype: Costa Rica, Amer. Cent, Biolley.

Not ♂, as recorded by Redtenbacher. Further type-material in BMNH, NHMW.

[*Paranisomorpha insignis* Redtenbacher, 1906]

*intermedia* Carl, 1913: 40 [*Bostra*]

[1 ♀. Guatemala. Muséum de Genève.]

MHNG [60]: 1 ♀.

HT ♀: Guatemala, H. d. Saussure.

[*Phanocles intermedius* (Carl, 1913)]

*jamaicana* Zompro, 2001a: 214, figs 48-49, 96-97, 132-133 [*Caribbiopheromera*]

[HT ♂, Jamaica, PSG-culture, origin: Jamaica. Culture O. Zompro VII.1995 (MHNG, ex coll. O. Zompro 118-2); PT: 1 ♀, 2 eggs (MHNG, ex coll. O. Zompro 118-5); 2 ♂, 3 ♀, several eggs: as HT (OZ 118-1, 3-4, 6-7); 1 ♂, 3 ♀ (Coll. F. Hennemann 61-1-4).]

MHNG : 1 ♂, 1 ♀, 2 eggs.

HT: ♂, Zucht O. Zompro VII.1995; 118-2 Coll. O. Zompro;

PT: 1 ♀, Zucht O. Zompro VII.1995; 118-5 Coll. O. Zompro.

Further type-material in Coll. O. Zompro, affiliated with ZMUK, and Coll. F. Hennemann.

[*Caribbiopheromera jamaicana* Zompro, 2001]

*jurinei* Saussure, 1868: 69 [*Metriotes*]

[No locality mentioned.]

MHNG [15]: 1 ♀.

HT: ♀: Amasm, Jurinei. 3 ♂, not referred to by Saussure, also present.

[*Isagoras jurinei* (Saussure, 1868)]

*linearis* Saussure, 1868: 65 [*Ceroys*]

[America meridionalis.]

MHNG [?]: Not traced.

*lobulatus* Carl, 1913: 12 [*Eucarcharus*]

[1 ♀. Ceylon. Muséum de Genève.]

MHNG [24]: 1 ♀.

HT ♀: Ceylon.

[*Eucarcharus lobulatus* Carl, 1913]

**lobulatus** Redtenbacher, 1908: 351 [*Laciphorus*]

[♀. Lima, Peru (Mus. Genf).]

MHNG [?]: Not traced.

[*Laciphorus lobulatus* Redtenbacher, 1908]

**longimana** Saussure, 1859: 61 [*Bacteria*]

[Bahia.]

MHNG [59]: 2 ♂.

ST: 2 ♂: Amer. merid.

[In collection as *Bactridium longimanum* (Saussure).]

**longiscapha** Redtenbacher, 1908: 435 [*Diapherodes*]

[♀. Portorico (Mus. Berlin, Mus. Genf).]

MHNG [65]: 1 ♀.

ST: Porto-Rico, Antilles, Mr. H. de Saussure.

Further type-material in ZMHB.

[*Diapherodes longiscapha* Redtenbacher, 1908]

**magayon** Zompro sp. n. [*Lonchodes*]

Figs 41-42, 56

MHNG [39bis]: 1 ♂.

HT: ♀, Philippinen, Luzon, Mt. Banahao.

Description below.

**malaccae** Saussure, 1868: 69 [*Necroscia*]

Fig. 16

[Malacca.]

MHNG [81]: 1 ♀.

HT ♀: Indes or., Anc. coll.

[*Asceles malaccae* (Saussure, 1868)]

**melanocephala** Carl, 1913: 18 [*Cuniculina*]

[2 ♂. Lompa-Battau, Celebes merid. 3000'; 1 ♂. Bua-Kraeng, Celebes merid. 5000'. Muséum de Genève.]

MHNG [26]: 3 ♂.

ST: 2 ♂: S. Celebes: Lompa-Battau, 3000 ft., III.1896, Fruhstorfer; 1 ♂: Bua-Kraeng, 5000 ft., III.1896, Fruhstorfer.

[*Ramulus melanocephalus* (Carl, 1913)]

**melanocephala** Carl, 1913: 5 [*Orobia*]

[5 ♂. Madagascar. Muséum de Genève.]

MHNG [6]: 5 ♂.

ST: 5 ♂: Madagascar, H. d. Saussure.

[*Leiophasma melanocephala* (Carl, 1913)]

**mexicanus** Saussure, 1859: 62 [*Acanthoderus*]

[Mexico.]

MHNG [41]: 1 ♀.

HT ♀: Mexico, Potrero.

[*Sermyle mexicana* (Saussure, 1859)]

[In collection as *Ocnophila mexicana* (Saussure)]

- mexicanus* Saussure, 1859: 63 [*Prisopus*]  
 [Mexico.]  
 MHNG [16]: 1 ♀.  
 HT ♀: Mirador, Mexique.  
 [*Prisopus mexicanus* Saussure, 1859]  
 (In collection as *Prisopus berosus* Westwood.)
- minor* Carl, 1913: 26 [*Pseudostheneboea*]  
 [2 ♂. Khasi-Hills, Assam. Muséum de Genève.]  
 MHNG [33]: 2 ♂.  
 ST: 2 ♂: Khasi Hills.  
 [*Pseudostheneboea minor* Carl, 1913]
- minuta* Redtenbacher, 1908: 480 [*Parasipyloidea*]  
 [♀. Ceylon (Mus. Genf).]  
 MHNG: Not traced.  
 [*Parasipyloidea minuta* Redtenbacher, 1908]
- modesta* Brunner v. Wattenwyl, 1907: 206 [*Cuniculina*]  
 [♀. Java (Mus. Genav., Mus. Hamb., Mus. Budap.), Java orient. (Mus. Berol.)]  
 MHNG [26]: 1 ♀.  
 ST: 1 ♀, Java, Fruhstorfer.  
 Further type-material in ZMHB and ZMUH. HNHM material was lost in fire in 1956.  
 [*Ramulus modestus* (Brunner v. Wattenwyl, 1907)]
- modesta* Carl, 1913: 6 [*Orobia*]  
 [1 ♂. Madagascar. Muséum de Genève.]  
 MHNG [5]: 1 ♂.  
 HT ♂: Madagascar, H. d. Saussure.  
 [*Leiophasma modesta* (Carl, 1913)]
- monticola* Carl, 1913: 41 [*Bacteria*]  
 [1 ♀. Costa-Rica (?) (W. Pittier leg.). Muséum de Genève.]  
 MHNG [61]: 1 ♀.  
 HT ♀: Costa Rica, Buenos Aires a Calamanca, W. Pittier, 12.IV.97.  
 [*Phanocloidea monticola* (Carl, 1913)]
- moracula* Redtenbacher, 1908: 545 [*Sipyloidea*]  
 [♂. Kina-Balu, Brunei, Borneo (Coll. m., Mus. Genf).]  
 MHNG [90]: 2 ♂.  
 ST: 1 ♂, Borneo, Iles de Sonde, Mr. Fruhstorfer, 620/27; 1 ♂, Brunei, E Borneo, Staudinger.  
 Further type-material in NHMW.  
 [*Sipyloidea moracula* Redtenbacher, 1908]
- munda* Redtenbacher, 1908: 525 [*Aruanoidea*]  
 [♂ ♀. Philippinen (Coll. m., Mus. Genf).]  
 MHNG [84]: 1 ♀.  
 ST: ♀, Philippines.  
 Further type-material in NHMW.

[*Necroschia munda* (Redtenbacher, 1908)]

[In collection as *Necroschia munda* (Redtenbacher)].

**mystica** Brunner v. Wattenwyl, 1907: 233, pl. 9: 8 [*Zehntneria*]

[♀. Promont. Bonae Spei (Mus. Genav.).]

MHNG [31]: 1 ♀.

HT: ♀, Cap. b. sp., Peringuey.

[*Zehntneria mystica* Brunner v. Wattenwyl, 1907]

Comment. Cap. b. sp. refers to Cape of Good Hope, Republic of South Africa.

**nanus** Carl, 1913: 52, pl. 1: 9 [*Paramenexenus*]

[1 ♂, 1 ♀. Tonkin. Muséum de Genève.]

Type-series: 1 ♂, 1 ♀.

MHNG [76]: 1 ♂, ♀.

ST: 1 ♂, ♀, syntypes: Tonkin, Baudet.

[*Paramenexenus nanus* Carl, 1913]

**nuptialis** Redtenbacher, 1908: 410 [*Bostra*]

[♂, Guyana (Mus. Genf.).]

MHNG [?]: Not traced.

**obtusecornuta** Redtenbacher, 1908: 409 [*Bostra*]

[♂ ♀. Guatemala (Coll. m. Alk.), Costa Rica (Mus. Berlin, Mus. Genf, Coll. m.).]

MHNG [60]: 1 ♂.

ST: 1 ♂, Costa Rica, Amer. merid., Mr. P. Biolley.

Further type-material in NHMW and ZMHB.

[*Paracalynda (?) obtusecornuta* (Redtenbacher, 1908)]

**occipitalis** Carl, 1913: 4 [*Orobia*]

[♀ ♀. Madagascar. Muséum de Genève.]

MHNG [6]: 5 ♀.

ST: 5 ♀: Madagascar, H. d. Saussure. [All ♀ seem to be types; Carl did not refer to a definite number]

[*Leiophasma occipitalis* (Carl, 1913)]

**olmeca** Saussure, 1869: 156 [*Bacteria*]

[♂. Le Mexique. Cordillère orientale.]

MHNG [45]: 1 ♂.

HT ♀: Mexique.

[*Pseudosermyle olmeca* (Saussure, 1859)]

[In collection as *Bacunculus olmecus* (Saussure)]

**palawana** Carl, 1913: 30 [*Prisomera*] Figs 35-36

[1 ♀. Palawan. Muséum de Genève.]

MHNG [39]: 1 ♀, 1 egg ex ovipositor.

HT ♀, 1 egg ex ovipositor: Philippines, Palawan, 1898, Doherty, ex coll. Fruhstorfer.

[*Stheneboea palawana* (Carl, 1913) comb. n.]

[In collection as *Lonchodes palawana* (Carl)].

Comment. The egg is described below.

**parvulus** Carl, 1913: 27 [*Acacus*]

[♂ ♂. Java (Dr. L. Zehntner leg.). Muséum de Genève.]

MHNG [35]: 8 ♂.

ST: 8 ♂: Java, Zehntner.

Further material in ANSP.

[*Parasipyloidea aenea* (Carl, 1913), synonymised by Günther, 1934: 529.]

**parvulus** Carl, 1913: 35 [*Bacunculus*]

[1 ♂. San Pedro Sula, Honduras. Muséum de Genève.]

MHNG [45]: 1 ♂.

HT ♂: Honduras, San Pedro Sula, ex coll. Fruhstorfer.

[*Pseudosermyle parvula* (Carl, 1913)]

**parvulus** Carl, 1913: 24, pl. 1: 12, 13 [*Micrarchus*]

Figs 12-13

[1 ♂ Greymouth, 1 ♂ Heteraunga (Nova Seelandia). Muséum de Genève.]

MHNG [29]: 2 ♂.

ST: ♂: Greymouth, Nlle. Zealand, Helms; ♂: Nov. Zealand, Heteraunga.

[*Micrarchus hystriculeus* (Westwood, 1859), synonymized by Salmon, 1999: 88.]

Comment. Salmon (1991: 88) synonymized *Micrarchus* Carl, 1913 (not of Kaup) (Type-species: *Micrarchus parvulus* Carl, 1913: 24, by monotypy) with *Pachymorpha* Gray, 1835 (Type-species: *Bacillus squalidus* Gray, 1833: 18, by monotypy). The genitalia of these genera show striking differences, therefore *Micrarchus* is re-established as a valid genus. The terminal abdominal segments of a pair of *Pachymorpha squalida* (Gray, 1835) from New South Wales [MHNG] are figured in figs 31-32.

**pedestris** Redtenbacher, 1908: 540 [*Candaules*]

[♀. Java (Mus. Genf.).]

MHNG [87]: 1 ♂.

HT: ♂, Java, H. d. Saussure.

[*Lopaphus pedestris* (Redtenbacher, 1908)]

**peruana** Saussure, 1868: 65 [*Bacteria*]

[Peru.]

MHNG [42]: 2 ♂.

LT: ♂: Iquitos, Perou, 600/81, Anc. coll. PLT: ♂: Perou.

[*Oreophoetes peruana* (Saussure, 1868)]

[In collection as *Allophyllus peruanus* (Saussure)]

Comment. Also 1 ♂ and 1 ♀ from Baños, Ecuador present, but not referred to by Saussure.

LT designated by Zompro, 2002: 146.

**picteti** Redtenbacher, 1908: 522 [*Aruanoidea*]

[♂, Borneo (Mus. Genf.).]

MHNG [84]: 1 ♂.

HT: ♂, Borneo, Iles de Sonde, Mr. C. Pictet.

[*Scionecra picteti* (Redtenbacher, 1908)]

**poeyi** Saussure, 1868: 67 [*Anophelepis*]

Figs 17, 58

[Insula Cuba.]

MHNG [14]: 2 ♀.

LT, by present designation: ♀: Cuba, acheté a M. Poey; PLT: 1 ♀, ♀: Cuba,

acheté a M. Poey; 3 ♀: Cuba, M. H. de Saussure.

[*Alloephasma poeyi* (Saussure, 1868)]

Comment. This lectotype designation is part of a revision of the Phasmatodea: Areolatae by O. Zompro and will support nomenclatural stability.

*poeyi* Saussure, 1868: 68 [*Creoxylus*]

[Larva. Cuba.]

MHNG [16]: 1 ♂ nymph.

HT ♂, nymph: Cuba, Antilles, acheté a M. Poey.

[*Creoxylus poeyi* Saussure, 1868]

*prima* Zompro, 1999: 124, figs 1-3 [*Microphasma*]

[Ceylan (Central), Horton plains, 2100m, 15.II.1970, leg. C. Besuchet / I. Löbl]

MHNG [33]: 1 ♀

HT: ♀, Ceylan (Central), Horton plains, 2100m, 15.II.1970, leg. C. Besuchet / I. Löbl.

[*Microphasma prima* Zompro, 1999]

*proximus* Carl, 1913: 28 [*Carausius*]

[1 ♂. Java, Dr. L. Zehntner. Muséum de Genève.]

MHNG [36]: 1 ♂.

HT: ♂: Java, Zehntner.

*pulchrepecta* Carl, 1913: 22 [*Gratidia*]

Figs 18-19

[1 ♂. Promont. Bonae Spei. Muséum de Genève.]

MHNG [30]: 1 ♂.

HT ♂: Cap b. Sp., Peringuey.

[*Gratidia pulchrepecta* Carl, 1913]

Cap. b. sp. refers to Cape of Good Hope, Republic of South Africa.

*pusillus* Redtenbacher, 1906: 61 [*Ceroys*]

[♂. Peru (Mus. Genf)]

MHNG [4]: 1 ♂.

HT: ♂, Peru.

[*Ceroys pusillus* Redtenbacher, 1906]

*putingmantsa* Zompro sp. n. [*Lonchodes*]

Figs 37-40, 54-55

MHNG [39bis]: 1 ♂, 1 ♀.

HT: ♂, Philippinen, Aroroy.

PT: 1 ♀, Philippinen, Aroroy.

Description below.

*quitensis* Saussure, 1868: 69 [*Phasma*]

[Aequator.]

MHNG [13]: 1 ♀.

HT ♀: Quito, Perou, H. de Saussure.

[*Pseudophasma quitensis* (Saussure, 1868)]

*rachis* Saussure, 1868: 64 [*Acanthoderus*]

Figs 20-21

[Nova Caledonia.]

MHNG [49]: 4 ♂. 1 ♀.

ST: 4 ♂, 1 ♀: Nlle. Caledonie, Oceanie, Mr. Deyrolle.

[*Cnipsus rachis* (Saussure, 1868)]

- ramosum** Saussure, 1861b: 127 [*Bacillus (Baculum)*]  
 [♀. Brasilia]  
 MHNG [?]: Not traced.  
 [*Baculum ramosum* (Saussure, 1868)]  
 Comment. This species is the type of the problematic genus *Baculum* Saussure, 1861. *Baculum ramosum* originates from Brazil, while all other species described in “*Baculum*” are from Asia. Furthermore, *Baculum ramosum* shows a character not present in any species described in this genus subsequently. All these species actually belong in *Ramulus* Saussure, 1861, and, to avoid further confusion, are listed within this genus. A revision of the whole genera around *Baculum* and *Ramulus* is in progress by Zompro.
- reclusa** Brunner v. Wattenwyl, 1907: 327 [*Dyme*]  
 [Terra caliente in Mexico. (Sauss., Mus. Genav., Coll.m.)]  
 MHNG [44]: 1 ♀.  
 ST: 1 ♀, Mexico.  
 Further type-material in NHMW.
- rossia** Rossi, 1788: 259, pl. 8: 1 [*Pseudomantis*]  
 MHNG [coll. Harz 1A]: 1 ♀.  
 NT: ♀, Spanien, Port Bon, 28.5.66, Dr. Eckerlein leg.  
 Invalid neotype designation for a species described from Pisa, Italy - correct neotype designated by Capra & Poggi (1980). Specimen deposited in MCSN.  
 [*Bacillus rossius* Rossi, 1788]
- rouxi** Carl, 1915: 174, 187, fig. 1 [*Labidiophasma*] Fig. 22  
 [Ngoi-Tal, 15.X.1911, 2 ♀.]  
 MHNG [48]: 1 ♀.  
 ST: ♀, Ngoye, 15.9.11.  
 Further material in NHMB.  
 [*Labidiophasma rouxi* Carl, 1915]
- rubescens** Saussure, 1868: 68 [*Necroscia*] Fig. 23  
 [Malacca.]  
 MHNG [83]: 1 ♀.  
 HT ♀: Malacca, Indes, Guerin.  
 [*Marmessoidea rubescens* (Saussure, 1868)]  
 [In collection as *Trigonophasma rubescens* (Saussure)]
- rubus** Saussure, 1861 [*Cladoxerus*]  
 [♀. Brasilia. (Bahia.)]  
 MHNG [63]: 3 ♀ ♀.  
 ST: 2 ♀: Bresil; ♀: without label.  
 [*Cladomorphus rubus* (Saussure, 1861)]  
 [In collection as *Phibalosoma rubus* (Saussure)]
- rufopectus** Redtenbacher, 1908: 416 [*Bacteria*]  
 [♂. Cayenne (Mus. Genf).]  
 MHNG [61]: 1 ♂.  
 HT: ♂, Cayenne, Prudhomme, 620/85.  
 [*Phanocloidea rufopectus* (Redtenbacher, 1908)]

- saginata** Redtenbacher, 1906: 86, pl. 4:10 [*Dina*]  
 [♂ ♀. Borneo, Brunnei, Kina ]  
 MHNG [8]:  
 ST: ♂, Brunei, E Borneo, Staudinger.  
 Further type-material in NHMW.  
 [*Dinophasma saginata* (Redtenbacher, 1906)]
- saussurei** Kirby, 1904: 397 [*Haaniella*]  
 [nom. n.]  
 MHNG. [19]: 1 ♀.  
 HT: ♀, Coll. Guerin.  
 [*Haaniella saussurei* Kirby, 1904]  
 (In collection as *Heteropteryx saussurei* Redtenbacher.).  
 Comment. Introduced as a name for *Heteropteryx grayi* var. Saussure, 1869: 310, which subsequently was also named *saussurei* by Redtenbacher, see below.
- saussurei** Redtenbacher, 1906: 171 [*Heteropteryx*]  
 [♀. Sunda-Inseln (Mus. Genf); Borneo (Hofmus. Wien, Mus. Budapest, Mus. Genua.)]  
 MHNG [19]: 1 ♀.  
 ST: ♀, Coll. Guerin.  
 Further type-material in HNHM, NHMW and MCSN.  
 [*Haaniella saussurei* Kirby, 1904]  
 [In collection as *Heteropteryx saussurei* Redtenbacher]  
 Comment. The same specimen as the above mentioned holotype of *Haaniella saussurei* Kirby, 1904, being type-specimen of both authors.
- saussurei** Bolívar, 1888: 136 [*Phantasis*]  
 [♀. Cuba. No. 104 ♀ de la coll. Gundlach.]  
 MHNG [49]: 1 ♀.  
 ST: ♀, Cuba, Saussure.  
 Further type-material in MNMS.  
 [*Hesperophasma saussurei* (Bolívar, 1888)]  
 [In collection as *Phantasis planula* (Westwood)]
- schauinslandi** Brunner v. Wattenwyl, 1907: 238, pl. 10: 3a, b [*Argosarchus*]  
 [♀. Ins. Chatam prope N. Seelandiam (Mus. Bremense), N. Seelandia (Mus. Berol., Mus. Genav.)]  
 MHNG [32]: 1 ♀.  
 ST: 1 ♀, New Zealand, Greymouth, Helms.  
 Further type-material in UMBB and ZMHB.  
 [*Argosarchus horridus* (White, 1846), synonymized by Salmon, 1991: 48.]
- schneideri** Werner, 1918: 268 [*Battacus*]  
 [Bintang Mariah, Montes Battak.]  
 MHNG [82]: 1 ♀.  
 HT: ♀, Sumatra, Binthang Mariah, Mt. Battak.  
 [*Tagesoidea nigrofasciata* Redtenbacher, 1908, synonymized by Brock, 1990: 14.]

- schulthessi* Carl, 1913: 21, pl. 1: 7, 8 [*Paraleptinia*] Figs 24-27  
 [1 ♀. Promont. Bonae Spei. Muséum de Genève.]  
 MHNG [30]:  
 HT ♀: Cap b. Sp., Peringuey.  
 [*Paraleptinia schulthessi* (Carl, 1913)]  
 Cap. b. sp. refers to Cape of Good Hope, Republic of South Africa.
- scutatus* Carl, 1913: 49, pl. 1: 1, 3 [*Andropromachus*] Fig. 28  
 [1 ♀. Tonkin. Muséum de Genève.]  
 MHNG [77]: 1 ♀.  
 HT ♀: Tonkin, Baudet.  
 [*Andropromachus scutatus* Carl, 1913]
- secunda* Carl, 1913: 31 [*Libethra*]  
 [1 ♂. Merida, Venezuela. Muséum de Genève.]  
 MHNG [41]: 1 ♂.  
 HT ♂: Venezuela, Merida.  
 [*Rugosolibethra secunda* (Carl, 1913)]
- segregata* Carl, 1913: 26, pl. 1: 2 [*Pseudostheneboea*] Fig. 29  
 [1 ♂. Khasi-Hills, Assam. Muséum de Genève.]  
 MHNG [33]: 1 ♂.  
 HT ♂, holotype: Khasi Hills. [A second ♂ with same data is present, but not referred to by Carl]  
 [*Pseudostheneboea segregata* Carl, 1913)]
- soror* Carl, 1913: 32 [*Libethra*]  
 [1 ♀. Merida, Venezuela. Muséum de Genève.]  
 MHNG [41]: 1 ♀.  
 HT ♀: Merida.  
 [*Rugosolibethra soror* (Carl, 1913)]
- speiseri* Carl, 1915: 193 [*Megacrania*]  
 [Malo, XI.1911, 8 ♀ ad., 2 ♀ juv.]  
 MHNG [51]: 1 ♀.  
 ST ♀: Malo (N. Hebr.), Dr. Speiser.  
 Further material in NHMB.  
 [*Megacrania batesii speiseri* Carl, 1915]  
 (In collection as *Megacrania batesi* var. *speiseri* Carl.)
- speiseri* Carl, 1915: 193 [*Hermarchus*]  
 [Mal, XI.1911, 2 ♀; Ambrym, III.1911, 2 ♀.]  
 MHNG [68]: 1 ♀.  
 ST: ♀: Malekula, Neue Hebriden, Mai 1911, D. Speiser.  
 Further material in NHMB.  
 [*Hermarchus inermis speiseri* Carl, 1915]
- spinigera* Saussure, 1859: 62 [*Bacteria*]  
 [♂. Brasilia.]  
 MHNG [?]: Not traced.  
 [*Canuleius euterpinus* (Westwood, 1859), synonymized by Kirby, 1904: 353.]

- spinipennis* Carl, 1913: 47 [*Oxyartes*]  
 [1 ♂. Tonkin. Muséum de Genève.]  
 MHNG [76]: 1 ♂.  
 HT ♂: Tonkin, Baudet.  
 [*Oxyartes spinipennis* Carl, 1913]
- spinosissinus* Carl, 1913: 46 [*Oxyartes*]  
 [1 ♂. Tonkin. Muséum de Genève.]  
 MHNG [76]: 1 ♂.  
 HT ♂: Tonkin, Baudet.  
 [*Oxyartes spinosissimus* Carl, 1913]
- spinosus* Saussure, 1868: 68 [*Lopaphus*]  
 [Malacca.]  
 MHNG [79]: 1 ♂.  
 HT ♂: Malacca, Indes, Guerin.  
 [*Centrophasma spinosum* (Saussure, 1868)]
- subintegra* Carl, 1913: 20 [*Medaura*]  
 [1 ♀. Khasi-Hills, Assam. Muséum de Genève.]  
 MHNG [30]: 1 ♀.  
 HT ♀: Khasi Hills, Assam.  
 [*Medaura scabrinscula* (Wood-Mason, 1873), synonymized by Brock & Cliquennois, 2000: 15.]
- submarginata* Redtenbacher, 1908: 532 [*Diacanthoidea*]  
 [♂ ♀. Sumatra (Mus. Genf); Perak (Mus. Hamburg, Westw.).]  
 MHNG [86]: 2 ♂.  
 ST: 2 ♂, Sumatra, Iles de Sonde, Dr. H. Dohrn.  
 Further type-material in NHMW and ZMUH.  
 [*Diacanthoidea diacanthos* (de Haan, 1842), synonymized by Brock, 1995: 88.]
- sumatranus* Brunner v. Wattenwyl, 1907: 184 [*Phobaeticus*]  
 [♀. Sumatra (Mus. Genav.), Indraviri in ins. Sumatra (Mus. Basil.).]  
 MHNG [23]: 1 ♀.  
 ST: ♀, Sumatra, Lakat, acheté d. M. Schneider.  
 Further type-material in NHMB.  
 [*Pharnacia sumatrana* (Brunner v. Wattenwyl, 1907)]
- superbus* Carl, 1913: 15 [*Clitumnus* (?)]  
 [2 ♂. Than-Moi, Tonkin. Muséum de Genève.]  
 MHNG [25]: 2 ♂.  
 ST: 2 ♂: Tonkin, Than-Moi, Jan.-Juli, Fruhstorfer.  
 [*Ramulus superbus* (Carl, 1913)]
- suspecta* Carl, 1913: 55 [*Calvisia*]  
 [1 ♀. Bornéo sept. Muséum de Genève.]  
 MHNG [93]: 1 ♀.  
 HT ♀: Nord Borneo, ex coll. Fruhstorfer.  
 [*Calvisia suspecta* Carl, 1913]
- tarsatus* Carl, 1913: 23 [*Mimarchus*]  
 [3 ♀. Greymouth, Blue Cliffs, Nova Seelandia. Muséum de Genève.]

Fig. 30

MHNG [31]: 3 ♂.

ST: ♂: Nov. Zealand; ♂: Nlle. Zealand, Marcet; ♂: Greymouth, Blue Cliffs, Nlle. Zealand, Helms.

[*Mimarchus tarsatus* Carl, 1913]

Comment. Jewel & Brock (in press) have corrected the present classification.

**thomae** Saussure, 1868: 64 [*Pygirhynchus*]

[Insula Saint-Thomas.]

MHNG [?]: Not traced.

[*Agamemnon thomae* (Saussure, 1868)]

**tolteca** Saussure, 1859: 62 [*Bacteria*]

[♂. Montes mexicani.]

MHNG [?]: Not traced.

**transiens** Redtenbacher, 1908: 539, pl. 26: 7 [*Candaules*]

[♂ ♀. Java (Coll. m., Mus. Genf, Mus. Hamburg, Mus. Berlin, Mus. Budapest).]

MHNG [87, 88]:

ST: [Drawer 87] 5 ♂, 9 ♀, [Drawer 88] 13 ♂, Zehntner, Java.

Further type-material in HNHM, NHMW, ZMHB and ZMUH.

[*Lopaphus transiens* (Redtenbacher, 1908)]

**triangulifera** Redtenbacher, 1906: 124, pl. 5: 2 [*Oestrophora*]

[♂ ♀. Surinam, Cayenne (Mus. Paris, Mus. Genf, Coll. m.)]

MHNG [14]: 1 ♂.

ST: 1 ♂, Surinam, Amer. mer., coll. Jurin.

Further type-material in MNHN and NHMW.

[*Oestrophora triangulifera* Redtenbacher, 1906]

**tricolor** Redtenbacher, 1908: 570 [*Calvisia*]

[♀. Sumatra (Coll. m.); Brunei, Borneo (Mus. Genf).]

MHNG [93]: 1 ♀.

PLT: 1 ♀, Brunei, E Borneo, Staudinger.

LT in NHMW.

[*Calvisia hemus* (Westwood, 1859), synonymized by Brock, 1995: 87.]

Comment. LT designated by Brock, 1995: 87.

**trilineatus** Carl, 1913: 28 [*Myronides*]

[♂ ♂. Silhet, Assam. Muséum de Genève.]

MHNG [35]: 5 ♂.

ST: 5 ♂: Silhet, Assam.

[*Lopaphus trilineatus* (Carl, 1913) comb. n.]

**unicolor** Carl, 1913: 8, pl. 1: 10 [*Eucles* (?)]

[1 ♂, 1 ♀. La Palma, 1600m, Costarica. (P. Biolley leg.). Muséum de Genève.]

MHNG [10]: 1 ♂, 1 ♀.

ST: 1 ♂, 1 ♀: Costa Rica, La Palma, 1600m, Biolley.

[*Eucles unicolor* Carl, 1913]

**unispinosa** Carl, 1913: 1 [*Antongilia*]

[1 ♂, Madagascar. Muséum de Genève.]

MHNG [1]: 1 ♂.

HT ♂: Madagascar, V. Heyden.

[*Antongilia unispinosa* Carl, 1913]

**verruculosa** Brunner v. Wattenwyl, 1907: 248 [*Stheneboea*]

[♂. Java (Coll. m., Mus. Genav.), Perak (Coll. m.)]

MHNG [33]: 9 ♂.

PLT: 9 ♂, Java, Zehntner.

Also 5 undescribed ♀ with same data. Further type-material in NHMW.

[*Stheneboea verruculosa* (Brunner v. Wattenwyl)]

LT in NHMW designated by Brock (1995: 86). The Java material is considered to represent a different species by Brock (1995: 86).

**virescens** Redtenbacher, 1906: 83 [*Abrosoma*]

[♂ ♀. Ceylon (Coll. m.); Andamanen (Hofmus. Wien); Sumatra (Mus. Genf).]

MHNG [?]: Not traced.

A specimen that is possibly a type in NHMB. Further type-material in NHMW.

[*Abrosoma virescens* Redtenbacher, 1906]

LT designated by Brock, 1998a: 64.

**viridis** Zompro, 1998: 163, fig. 10 [*Breviphetes*]

[Holotypus: ♂, (Neuguinea) Kaiser Wilhelmsland, Torricelli-Gebirge, 1910, Dr. Schlaginhaufen (MHNG). - Allotypus: ♀, Daten wie Holotypus (SMTD).]

MHNG [33]: 1 ♂.

HT: ♂, Kais. Wilhelmsland, Toricelli Gebirge, 780m, Dr. Schlaginhaufen.

Further material in SMTD.

[*Breviphetes viridis* Zompro, 1998]

**yersiniana** Saussure, 1868: 65 [*Bacteria*]

[Porto-Rico.]

MHNG [43]: 1 ♂.

HT: ♂, Puerto Rico, Yersin.

[*Bacteria yersiniana* (Saussure, 1868)]

[In collection as *Dyme yersiniana* (Saussure)]

**zehntneri** Redtenbacher, 1908: 421 [*Bacteria*]

[♀. Guatemala (Mus. Genf); Vera Cruz (Coll. Godman).]

MHNG [?]: Not traced.

Type-material in BMNH.

[*Phanocles zehntneri* (Redtenbacher, 1908)]

**zehntneri** Carl, 1913: 53 [*Centema*]

[4 ♂. Simpar, in ins. Java. (Dr. L. Zehntner.). Muséum de Genève.]

MHNG [80]: 4 ♂.

ST: 4 ♂: Java, Zehntner.

[*Centrophasma zehntneri* (Carl, 1913)]

**zehntneri** Redtenbacher, 1908: 479 [*Parasipyoidea*]

[♀. Kandy, Ceylon (Mus. Genf).]

MHNG [?]: Not traced.

ST ♀ present in NHMW.

[*Parasipyoidea zehntneri* Redtenbacher, 1908]

*zomproi* Fritzsche & Gitsaga, 2000: 11-14, 2 figs [*Parapachymorpha*]

[Holotyp ♂: Thailand, Nakhon Ratchasima, S Khao Mai Pok, 900-100m, 101°19'E 14°31'N, 19.-25.X.1997, leg. I. Fritzsche (Coll. O. Zompro)]. Data for Paratypes, see Fritzsche & Gitsaga (2000).

MHNG [30]: 1 ♂, 1 ♀.

PT: 1 ♂, 1 ♀, Zucht O. Zompro I.1999; 349-64, 100 Coll. O. Zompro.

Further type-material in DEIC, ISNB, MCSN, NHMW, SMTD, ZMHB, ZMUH, ZSMC, Coll. I. Fritzsche, Coll. F. Hennemann, Coll. O. Zompro, affiliated with ZMUK.

[*Parapachymorpha zomproi* Fritzsche & Gitsaga, 2000]

## DESCRIPTIONS

*Alienobostra godmani* (Redtenbacher, 1908)

Figs 33-34

*Material examined.* 1 egg, ex ovipositor ST: 1 ♀, Costa Rica, Amer. cent., Mr. P. Biolley, 620/76 [MHNG, drawer 60]. In collection as *Bostra godmani* Redtenbacher.

*Description.* Capsule brown, with flat ridges of lighter colour. Micropylar plate positioned in the capsule in an angle, elongated cordiform in shape, marginated. Capitulum yellow brown, with lateral impressions, in the middle deeply impressed.

Measurements (mm): Total: 3.3; length: 2.8; width: 1.8; height: 1.4.

*Stheneboea palawanica* (Carl, 1913)

Figs 35-36

*Material examined.* 1 egg, ex ovipositor HT: Philippines, Palawan, 1898, Doherty, ex coll. Fruhstorfer [MHNG, drawer 39]. In collection as *Lonchodes palawanica* (Carl).

*Description.* Capsule brownish, depressed laterally, asymmetrical dorsoventrally, capsule covered with white and brown spots, swollen ventroposteriorly. Capitulum on a stalk, mushroom-shaped, orange brown. Capsule marginated anteriorly. Posterior end projecting. Micropylar plate strongly angled, whitish brown.

Measurements (mm): Total: 3.5; length: 3.0; width: 2.7; height: 1.8.

*Lonchodes dalawangungay* Zompro sp. n.

Figs 43-44

*Material examined.* Holotype, ♀: Philippinen, Luzon, Imugan.[MHNG, drawer 39bis]. Left midleg broken off and missing, also left metatarsus. Fifth tarsomere missing in right metatarsus.

*Diagnosis.* Lonchodini. Differing from all species known by the two very large spines between the eyes and the ventroposterolateral lobes of abdominal segment VII.

*Description.* General colour midbrown. Body covered with lighter granulae, not shiny.

Head slightly narrowed posteriad, with indistinct median line. Eyes projecting hemispherically, with two prominent, acute horns between them, these directed anteriad. Vertex with several small tubercles, posterior margin with four short, longitudinal impressions. Gula present. Scapus rectangular, flat, ventrally impressed. Pedicellus cylindrical, two thirds as wide and slightly less than half as long as scapus. Antennae projecting beyond middle of abdominal segment II.

Prothorax with distinct anterior, lateral and posterior margins. With two tubercles anteromedially, and transverse impression medially. This impression also

with two tubercles submedially. Anterior half with two longitudinal impressions sublaterally. Mesonotum strongly elongated, about 7.5 times as long as pronotum, irregularly granulated, with fine, sometimes indistinct, median line, and some separated larger tubercles laterally. Segment slightly dilating near the coxae. Mesosternum granulated. Metathorax structured as mesothorax, but about one third shorter.

Profemora curved and compressed basally, triangular in cross-section, edges lamellate. Protibiae also triangular in cross-section, longer than profemora, edges also lamellate. Probasitarsus slightly longer than following three tarsomeres combined, with prominent crest in the anterior half. Second to fourth segment decreasing in length, also with dorsal crest. Fifth tarsomere curved, without dorsal crest, as long as third and fourth segment combined.

Meso- and metafemora trapezoidal in cross-section, with pointed edges and ventromedian carina. With a broad, single spine ventrolaterally before the knee. Meso- and metatibiae quadrate in cross-section. Mesotibiae shorter, metatibiae longer than their appertaining femora. In meso- and metatarsi basitarsi carinated, but without prominent crest in the anterior half. Following tarsomeres also with dorsal carina, decreasing in length. Fifth tarsomere curved, as long as previous two segments.

Median segment quadrate, with broad posterior margin, this margin lighter and less granulated, less than one fourth as long as metanotum.

Abdominal segment II slightly more than twice as long as median segment, as long as III and IV. V longest segment. VI as II. VII slightly shorter than II, with ventro-posterolateral lobes. Sternites II to VI with a very flat, black impression before posterior margin. VII in distal half depress laterally, carinated medially. VIII longer than IX and X combined, carinated dorsally. X with a v-shaped incision posteriorly. Supranal plate slightly projecting, triangular, with median carina. Subgenital plate with median keel in the posterior half, slightly broadened in the distal half, depressed ventrolaterally. Cerci short, acute, bristled.

Measurements (mm): Body: 124.5; head: 5.6; antennae: 67.5; pronotum: 3.9; mesonotum: 29.0; metanotum: 17.5; mediansegment: 3.9; profemora: 29.6; protibiae: 29.9; mesofemora: 23.0; mesotibiae: 21.7; metafemora: 26.8; metatibiae: 28.8; pro-tarsi: 9.3; mesotarsi: 7.6; metatarsi: 7+.

Male unknown.

*Name.* “*dalawang sungay*”, Tagalog for “two horns”, referring to the two prominent spines between the eyes.

*Lonchodes magayon* Zompro sp. n.

Figs 41-42, 56

*Material examined.* Holotype, ♂: Philippinen, Luzon, Mt. Banahao [MHNG, drawer 39bis]. Left foreleg, fifth tarsomere of left metatarsus and claws of right metatarsus broken off and missing.

*Diagnosis.* Lonchodini. The colouration of this species resembles strikingly *Periphetes granifer* (Westwood, 1859), but *magayon* n. sp. differs in the form of the genitalia. This colouration is unique in the whole Lonchodini.

*Description.* Whole body granulated, head, prothorax, posterior parts of thoracic segments, knees and tibiae green, abdomen greenish red, remaining parts of body orange brown.

Head elongated trapezoid, with a small, triangular impression between the eyes, vertex with several small tubercles. Clypeus light brown. Eyes brown, projecting hemispherically. Antennae projecting beyond abdominal tergite III. Scapus flattened rectangular. Pedicellus cylindrical, one third as long and two thirds as wide as scapus. Third antennomere considerably narrower and slightly longer than pedicellus.

Pronotum slightly shorter than head, green, with distinct anterior margin and deep median and transverse impression; slightly granulated. Mesonotum strongly granulated, brown, with green median line, broadened and green in the coxal area, epimera also green. Mesosternum strongly granulated. Metanotum structured as previous segment, one third shorter.

Profemora curved and compressed basally, four-edged, edges lamellate and bristled; with two green, lateral teeth anterolaterally, the exterior one prominent, the interior one indistinct. Probasitarsus as long as following tarsomeres combined, following segments decreasing in length, all tarsomeres carinated dorsally. Meso- and metafemora trapezoid in cross-section, edges distinct, but not lamellate, bearing very short, transparent bristles; ventroapically with large lateral spines.

Abdominal segments with fine, raised median line. Mediansegment quadrate, abdominal segment II 2.5 times as long. II to VI of similar length and width. VII 2/3 as long as VI, dilated posteriad, as long as IX. Lateral margins of IX parallel, median line deeply impressed in the posterior third. X 1.5 times as long as IX, posterolateral edges elongated triangular and projecting, these edges interiorly with long, black teeth. Cerci small, short, curved inwards, bristled. Subgenital plate comparably flat, slightly swollen.

Measurements (mm): Body: 72.0; head: 3.2; antennae: 52.4; pronotum: 2.2; mesonotum: 19.5; metanotum: 12.3; mediansegment: 2.2; profemora: 19.8; protibiae: 20.0; mesofemora: 16.4; mesotibiae: 16.6; metafemora: 18.5; metatibiae: 19.3; protarsi: 7.9; mesotarsi: 5.6; metatarsi: 5.7+.

Female unknown.

*Name.* “magayon”, Bicolano, the language of the people inhabiting the collecting site, for “beautiful”, referring to the colouration.

*Lonchodes putingmantsa* Zompro sp. n.

Figs 37-40, 54-55

*Material examined.* HT, ♂: Philippinen, Aroroy. [MHNG, drawer 39bis]. Right metatarsus and claw of left metatarsus broken off and missing.

PT: 1 ♀: Philippinen, Aroroy. [MHNG]. The abdomen is damaged by evisceration, the right antenna is broken off, but glued to the head. 1 ♂, Philippinen, Aroroy. [ZSMC].

*Diagnosis.* Lonchodini. Characterized by the white spots on genae, thorax and the male's terminal abdominal segments. These features distinguish *putingmantsa* distinctly from all other species in Lonchodini. Body strongly granulated.

*Description* ♂. Body brown, slightly shiny. Pro- and mesofemora green, their knees black. Metafemora brown, their knees also black. Tibiae greenish brown.

Head slightly longer than wide, narrowed distad. Eyes projecting hemispherically, between them with two flat, but acute tubercles. Colour of clypeus lighter. Genae white, with black margin dorsally. Tentorium also white. Antennae projecting beyond abdominal tergite III. Scapus flattened rectangular, two times as wide and three times

as long as pedicellus. Pedicellus cylindrical. Third antennomere half as wide and 1.5 times as long as pedicellus.

Pronotum with median and transverse impression, anterior margin broad, with two tubercles submedially. The white spots are positioned mediolaterally, also covering part of the epimera.

Prosternum white. Mesonotum strongly elongated and granulated, with fine, shiny median carina and widely separated small, transparent bristles (10x); dilating slightly before coxae, this area with white spots laterally, also covering epimera. Mesosternum structured as mesotergum, between coxae white spotted. Metathorax as mesothorax, but one third broader and one third shorter.

Profemora green, curved and compressed basally, four-edged, edges bristled; ventroapically with two submedian spines. Protibiae almost quadrate in cross-section, edges also bristled. First four tarsomeres with distinct dorsal carina. Basitarsus slightly longer than following four tarsomeres combined; second segment longer than third and fourth combined, third longer than fourth, fifth segment curved, slightly broadened apicad. Mesofemora and tibiae also green, trapezoid in cross-section. Mesofemora with two prominent, black lateral spines ventroapically. Metafemora and tibiae brown, structured as midlegs. Meso- and metatarsus as protarsus.

All abdominal segments with fine, median carina. Mediansegment slightly longer than wide, strongly granulated and with white spots laterally. Abdominal segments II to VII with a small (sometimes indistinct), white spot antero- and postero-laterally. II 2.5 times as long as median segment, II to VI of similar length, decreasing in width. VIII half as long as VII, dilating posteriad. Lateral margins of IX almost circular, whitish. X almost divided medially, white laterally, posterior ends strongly elongated and projecting, with striking black teeth interiorly. External vomer not produced, cerci strongly elongated, bristled. Sternite II with two white lateral spots anteromedially, III to VII with a small impression posteromedially.

Measurements ♂ (mm): Body: 96.2; head: 4.0; antennae: 64.8; pronotum: 2.8; mesonotum: 24.5; metanotum: 16.1; mediansegment: 3.2; profemora: 25.0; protibiae: 27.2; mesofemora: 18.5; mesotibiae: 19.0; metafemora: 21.9; metatibiae: 25.3; protarsi: 7.9; mesotarsi: 6.2; metatarsi: 6.7+.

*Description* ♀. More robust than ♂, without white spots, body and extremities uniformly midbrown.

Head from dorsal aspect oval in shape, between the hemispherically projecting eyes with two small, acute spines. Clypeus lighter brown. Antennae projecting distinctly beyond abdominal tergite II. Scapus strikingly flattened, rectangular, pedicellus cylindrical. Third antennomere half as wide and 1.5 times as long as pedicellus.

Pronotum slightly shorter and narrower than head, strongly granulated, with deep, blackish median and transverse impression and broad margin anteriorly. Mesonotum strongly elongated, with light median carina and irregular, small, dark spots and transparent bristles (10x), these are also present on the abdominal segments. Mesonotum with same structure, about 3/5 as long.

Profemora curved and compressed basally, four edged in corss-section, edges lamellate and bristled. Protibiae quadrate in cross-section, edges bristled. Probasitarsi carinated dorsally, as long as following four tarsomeres without claws combined,

following three segments decreasing in length, fifth tarsomere broadened apicad. Meso- and metafemora straight basally, trapezoid in cross-section, edges slightly lamellate and bristled. Tibiae as protibiae, meso- and metatarsi as protarsi. All knees black.

Abdominal segment II twice as long as median segment, II to VII of similar length, VIII about 2/3 as long as VII, slightly dilating posteriad, VIII as long as IX and X combined, X slightly longer than IX, posteriorly with a notch. Supra anal plate projecting, triangular. Sternites II to VII with small, black impression posteromedially. Subgenital plate boat-shaped, with an sharp keel ventromedially, acute posteriorly, projecting X by half of X's length. Cerci very short, small, elongated triangular.

Measurements ♀ (mm): Body: 124.1; head: 5.6; antennae: 71.0; pronotum: 5.0; mesonotum: 29.0; metanotum: 16.7; mediansegment: 4.3; profemora: 28.4; protibiae: 30.1; mesofemora: 20.9; mesotibiae: 18.8; metafemora: 22.2; metatibiae: 24.0; protarsi: 9.0; mesotarsi: 8.0; metatarsi: 8.8.

*Name.* “*puting mantsa*”, Tagalog for “white spotted”, refers to the characteristic white spots on the genae, thorax and the terminal abdominal segments of the male.

*Comment.* The white spots consist of a dust-like material. This kind of colouration was previously unknown in phasmids. The female paratype's abdomen is damaged by evisceration.

***Parapodacanthus* Brock gen. n.**

Figs 46-53

*Type-species:* *Parapodacanthus hasenpuschorum* Brock sp. n., by present designation.

*Diagnosis.* Typical Tropicoderini. Closely related to *Podacanthus* Gray, 1835, but easily distinguished by the presence of large spine-like tubercles on the mesonotum, in addition to differences in egg structure. Eggs are small in this new genus, oval with a small capitulum; capsule slightly hairy and not ridged. In *Podacanthus* Gray, eggs are large, oval or elongate with large capitulum; capsule not hairy, with numerous raised ridges.

*Description.* Medium sized, large winged Tropicoderini. Head slightly longer than wide. Eyes large. Three ocelli present. Antennae long, but shorter than length of fore leg. Scapus slightly broader than remaining segments.

Pronotum slightly longer than head, with central impression. Mesonotum short, just over 1.5 times the length of pronotum. The other spines slanting outwards, posterior pair shorter than preceding pairs. Metanotum slightly longer than mesonotum. Lateral margins of meso- and metathorax with series of small tubercles. Metathorax with small tubercles ventrally. Tegmina long and slender, slightly shorter in ♂ than in ♀, tapered to a round tip. Alae long with darker veins. Legs moderately long and slender, slightly hairy. Profemora smooth, except for apical spine. Meso- and metafemora with eight fairly even serrations ventrolaterally, and an apical spine. Tarsi of modest length.

Abdomen slender, in ♂ anal segment twice as long as abdominal segment IX, split into large lobes, broad on dorsal part, then considerably narrowed, ending in a club posteriorly. Lobes forming an expanded, circular arch-like structure. Subgenital

plate swollen, raised in centre, then tapered to slightly rounded tip, slightly projecting beyond posterior margin of sternite IX. In ♀, posterior margin of X bold triangular incised; supra-anal plate visible, rounded at tip. Operculum long and narrow, rounded at tip, extending beyond end X. Cerci much longer than X, broadened and leaf-like, slightly pointed at tip; overlapping or incurved.

*Distribution.* Australia, North Queensland.

*Species included.* *Parapodacanthus hasenpuschorum* Brock sp. n.

***Parapodacanthus hasenpuschorum* Brock sp. n.**

Figs 46-53, 60-62

*Material examined.* HT: ♂; Stone Creek, Garradunga, Innisfail, N. Qld., 19.I.1996, J. Hasenpusch [QMBA].

PT: 3 ♂, 10 ♀; Stone Creek, Garradunga, Innisfail, N. Qld. (2 ♂, 1 ♀, 16.I.1997, leg. P. Hasenpusch; 1 ♂, 2 ♀ ♀, 17.I.1997, leg. J. Hasenpusch; 1 ♀, 09.XI.1995, leg. P. Hasenpusch; 2 ♀, 20.XII.1995, leg. J. Hasenpusch; 1 ♀, 19.I.1996, leg. J. Hasenpusch; 1 ♀, 14.I.1997, leg. S. Hasenpusch; 1 ♀, 18.I.1997, leg. J. Hasenpusch; 1 ♀, 20.I.1997, leg. J. Hasenpusch) [QMBA]; 3 ♂, 3 ♀; North Queensland: Stone Creek, Garradunga, Innisfail, N. Qld. (1 ♂, with abdomen broken off, 1 ♀, XI.1992, leg. J. Hasenpusch; 1 ♂, 1 ♀, 29.X.1997, leg. J. Hasenpusch; 1 ♂, 1 ♀, and eggs, 25.X.1997, leg. J. Hasenpusch & P. D. Brock) [Coll. P. D. Brock]; 1 ♂, 3 ♀, Stone Creek, Garradunga, Innisfail, N. Qld. (1 ♂, 21.I.1997, leg. J. Hasenpusch; 2 ♀ ♀, 21.I.1997, leg. S. Hasenpusch; 1 ♀, 20.I.1997, leg. P. Hasenpusch) [ANIC]; 1 ♂; Cairns, "Nov. Holl" [MHNG].

**ADULTS**

Attractive leaf green and brown, medium sized insect of glossy appearance, with four pairs of large spine-like tubercles on mesonotum and dark pink alae.

*Description* ♂. Head slightly longer than wide. Genae green with a narrow dark brown band. Eyes large, brown. Three ocelli present. Antennae long, black with scapus and following segments dark brown.

Pronotum green, slightly longer than head, with central impression. Mesonotum more than 1.5 times as long as pronotum, with four pairs of large brown spine-like tubercles; the front pair are much longer, rather horn-like, black tipped, curved anteriorly and laterad. The other spines slant outwards, the posterior pair shorter than the preceding pairs. Remainder of mesonotum green. Metanotum slightly longer than mesonotum; green. Lateral margins of meso- and metathorax with series of small tubercles. Metasternum with small tubercles. Tegmina long and slender, tapered to a rounded tip, green with broad cream margin followed by two thick central dark mauve lines, with a narrow white line between; then green area, which includes three cream stripes. Pre-anal part of alae the same colour, although margin is a narrower cream band, followed by two mauve lines and remainder green. Inner margin transparent / reddish. Alae dark pink with darker pink veins. Legs elongate, slightly hairy, fore legs yellowish brown, mid and hind legs, particularly femora dark reddish green; profemora smooth, except for apical spine. Meso- and metafemora with eight fairly evenly spaced serrations on ventrolateral carinae, and an apical spine. Tibiae smooth, except inner margin of metatibiae slightly serrate. Tarsi of modest length. Apices of leg segments darker.

Abdomen slender, abdominal segment VII reduced in size compared with previous segments, VIII shorter, broadened anteriorly; IX shorter again and narrow, slightly expanded at base. Anal segment twice as long as IX, split into two large lobes, broad

on upper part, then considerably narrowed, ending in a club at tip. The lobes form an expanded, circular arch-like structure. Subgenital plate swollen, raised in centre, then tapered to slightly rounded tip, just exceeding end of IX. Cerci much longer than X, broadened and leaf-shaped, slightly pointed at tip; overlapping.

Measurements (mm), HT, ♂: Body: 83.0; head: 3.5; antennae: 39.0; pronotum: 3.8; mesonotum: 6.5; metanotum: 9.0; tegmina: 16.0; alae: 58.0; median segment: 6.0; profemora: 20.0; protibiae: 17.0; mesofemora: 17.0; mesotibiae: 13.0; metafemora: 20.0; metatibiae: 18.0; protarsus: 11.0; mesotarsus: 7.0; metatarsus: 9.0; cerci: 6.0.

Measurements (mm), PT, ♂: Body: 83.0-88.0; head: 3.5-3.7; antennae: 39.0-40.0 (tips often broken off); pronotum: 3.8-4.0; mesonotum: 6.5-7.0; metanotum: 9.5; tegmina: 16.0-17.0; alae: 58.0-60.0; median segment: 5.5; profemora: 20.0-21.0; protibiae: 17.0-19.0; mesofemora: 16.0-17.0; mesotibiae: 12.0-13.0; metafemora: 20.0-21.0; metatibiae: 17.5-18.0; protarsus: 11.0; mesotarsus: 7.0; metatarsus: 9.0-10.0; cerci: 6.0-6.5.

*Description* ♀. Broader than male, but description similar except insect is nearly all leaf-green; tegmina and pre-anal part of alae are green, often with broad cream band of varying magnitude. The mesonotum is brown on the spine-shaped tubercles as in male, and there are brownish bands on the head. The legs are greenish, apices of femora and tibiae with slight brown tinge. Interolateral margin of metatibiae with 14 small serrations.

Metathorax with series of ten small tubercles laterally; much smaller series on metathorax. Metasternum with white margins and blotch on posterior part; tubercles also present.

Abdomen green, with middle part broad reddish brown. End of anal segment boldly triangularly incised, supra-anal plate visible, rounded at tip, which extends beyond end of anal segment. Cerci long, as long as IX and X combined; leaf-shaped, broader at base, incurved and slightly pointed at tip.

Measurements (mm), PT, ♀: Body: 100.0-117.0; head: 5.0-6.0; antennae: 42.0-50 (tips often broken off); pronotum: 4.7-5.5; mesonotum: 7.0-8.0; metanotum: 15.0-16.0; tegmina: 25.0-31.0; alae: 75.0-86.0; median segment: 7.0; profemora: 20.5-24.0; protibiae: 19.0-22.0; mesofemora: 16.0-22.0; mesotibiae: 12.0-14.0; metafemora: 21.0-27.0; metatibiae: 17.0-21.0; protarsus: 12.0-14.0; mesotarsus: 8.0-9.5; metatarsus: 9.0-10.5; cerci: 5.0-6.5.

#### NYPHS

The first pair of spines on the mesonotum are black, followed by a central black longitudinal band, not reaching end of mesonotum. In the adult, this colouration changes and all spines are brown.

#### EGG

Small, dark brown (orange when freshly laid), capsule oval, slightly hairy with small lighter brown knob-like capitulum on a stalk. Capsule with numerous small cristae. Micropylar plate small, cordiforme, its center dark brown to black, with lighter brown median line reaching posterior pole.

Measurements (mm): Capsule length: 2.7; width: 1.5; height: 1.5.

## NAME

Named *Parapodacanthus* in view of its apparant affinity with *Podacanthus* Gray. The species is named after the Hasenpusch family, who collected the majority of the type-series and have a passion for insects; few individuals can boast of such a beautiful range of insects in and around the vicinity of their rainforest home.

## DISTRIBUTION

Endemic for North Queensland, Australia. This species was only found at the lower slopes of Innisfail and Garradunga, Cairns, Kuranda, at Black Mt. Road and Mt. Lewis.

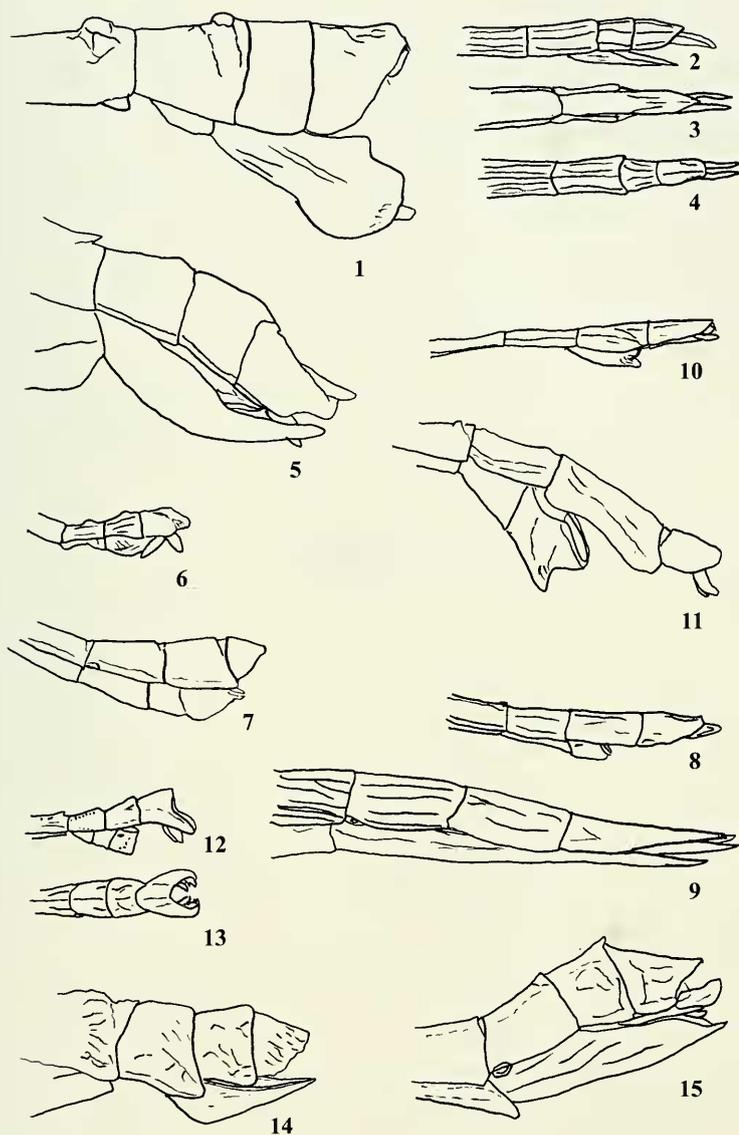
## COMMENTS

This rainforest species was found feeding on *Melicope elleryanas* (Rutaceae) and *Acronychia acidula* (Rutaceae) in the wild, whereas the closely related *Podacanthus* species feed on *Eucalyptus* spp. (Myrtaceae). *Parapodacanthus hasenpuschorum* sp. n. refuse to feed on various *Eucalyptus* spp. or *Tetradium daniellii* (Rutaceae). The male of an unidentified species in the collection of Mr T. Hiller (Mt. Glorious, South-East Queensland) was found on *Tetradium* sp. Both sexes can fly well. Adults and nymphs emit an unpleasant smelling odour from their prothoracic glands. Newly hatched nymphs are brick red with green leg joints.

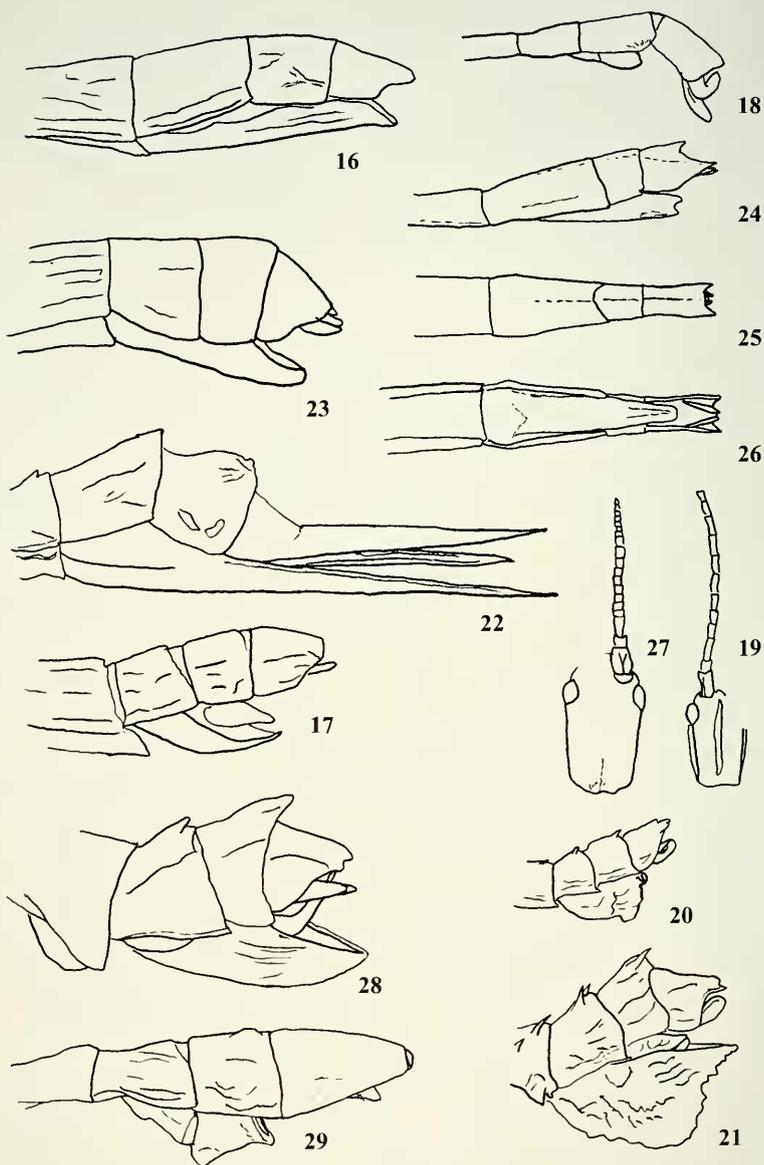
## ACKNOWLEDGEMENTS

The authors wish to thank Prof. Dr V. Mahnert, Dr P. Schwendinger and Dr C. Lienhard [MHNG] for their support, and especially Ms A. Teschke (Berlin, Germany), who kindly arranged and digitalized the figures. Prof. Dr Victor P. Gapud and Orlando L. Eusebio (University of the Philippines, Los Baños, Philippines) supported naming the three species described from the Philippines. Dr P. E. Bragg (Nottinghamshire, England), Prof. Dr J. Adis and Prof. Dr W. Junk (both Max-Planck-Institute for Limnology, Ploen, Germany) provided their support in every respect.

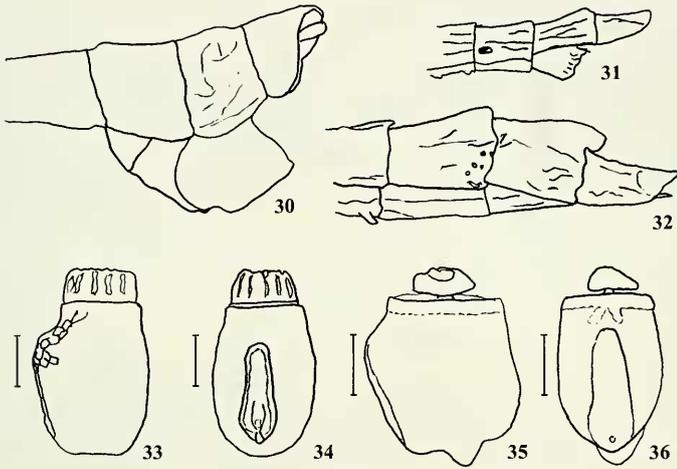
J. Hasenpusch (Garradunga, North Queensland, Australia) kindly provided notes and foodplant details of *Parapodacanthus hasenpuschorum*.



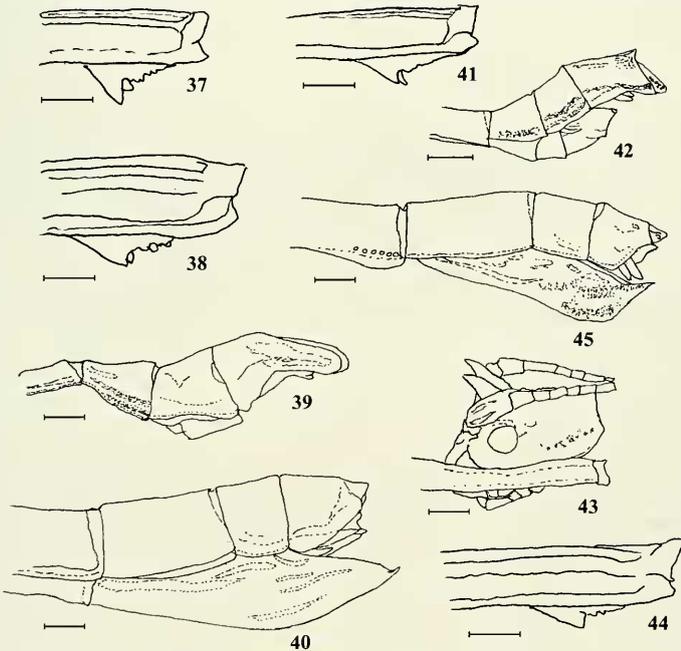
FIGS 1-15. Terminal abdominal segments, lateral aspect. To various scales. *Xylodus adumbratus* Saussure, 1859. 1. HT, ♀. *Gratidia carinulata* (Saussure, 1868). 2. ST, ♀. 3. Dorsal aspect. 4. Ventral aspect. *Paramenexenus ceylonicus* (Saussure, 1868) 5. HT, ♀. *Phantasca (?) cubensis* (Saussure, 1868). 6. HT, ♂. *Paroxyartes dohertyi* Carl, 1913. 7. HT, ♂. *Brachyrhamphus fecundus* Carl, 1915. 8. ST, ♂. 9. ST, ♀. *Clonistria guatemalensis* Redtenbacher, 1908. 10. LT, ♂. 11. PLT, ♂. *Micrarchus hystriculeus* (Westwood, 1859). 12. HT of *Micrarchus parvulus* Carl, 1913. ST, ♂. 13. ST, ♂. Dorsal aspect. *Paranisomorpha insignis* Redtenbacher, 1906. 14. ST, ♀. *Parastheneboea laetior* (Brunner v. Wattenwyl, 1907). 15. HT of *Echinoclonia borneensis* Carl, 1913, ♀.



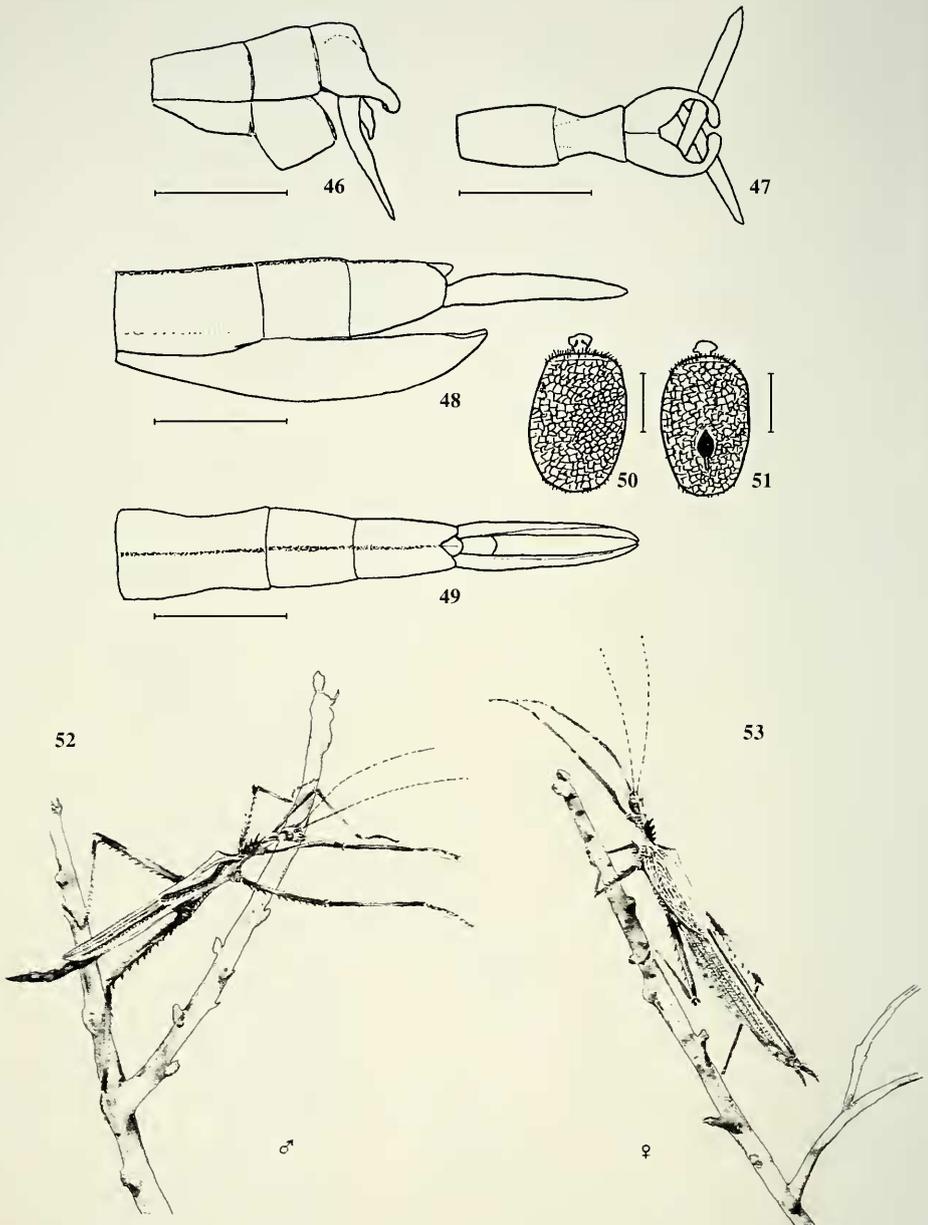
FIGS 16-29. Terminal abdominal segments, lateral aspect. To various scales. *Asceles malaccae* (Saussure, 1868). 16. HT, ♀. *Alloeophasma poeyi* (Saussure, 1868). 17. HT, ♀. *Gratidia pulchrepecta* Carl, 1913. 18. HT, ♂. 19. Head, dorsal aspect. *Cnipsus rhachis* (Saussure, 1868). 20. ST, ♂. 21. ST, ♀. *Labidiophasma rouxi* Carl, 1915. 22. ST, ♀. *Marmessoidea rubescens* (Saussure, 1868). 23. HT, ♀. *Paraleptinia schulthessi* (Carl, 1913). 24. HT, ♀. 25. Dorsal aspect. 26. Ventral aspect. 27. Head, dorsal aspect. *Andropromachus scutatus* Carl, 1913. 28. HT, ♀. *Pseudostheneboea segregata* Carl, 1913). 29. HT, ♂.



FIGS 30-36. Terminal abdominal segments, lateral aspect. To various scales. *Centrophasma spinosum* (Saussure, 1868). 30. HT, ♂. *Pachymorpha squalida* (Gray, 1833). 31. ♂. 32. ♀. Eggs. Scale: 1 mm. *Alienobostra godmani* (Redtenbacher, 1908), egg. 33. Lateral aspect. 34. Dorsal aspect. *Stheneboea palawanica* (Carl, 1913), egg. 35. Lateral. aspect. 36. Dorsal aspect.

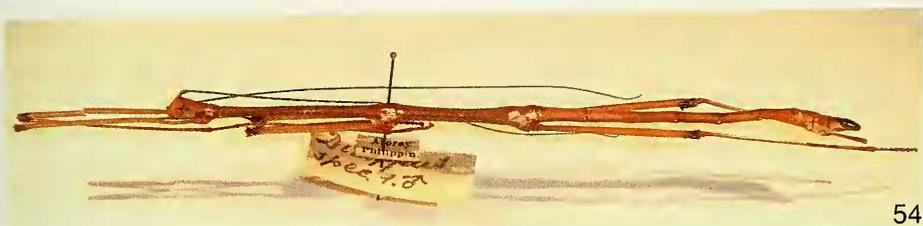


FIGS 37-45. *Lonchodes putingmantsa* Zompro sp. n. Right mesofemur, apex, lateral aspect. 37. HT, ♂. 38. PT, ♀. Terminal abdominal segments, lateral aspect. 39. HT, ♂. 40. PT, ♀. Scale: 5 mm. *Lonchodes magayon* Zompro sp. n., HT, ♂. 41. Right mesofemur, apex, lateral aspect. 42. Terminal abdominal segments, lateral aspect. Scale: 5 mm. *Lonchodes dalawangsungay* Zompro sp. n., HT, ♀. 43. Head, lateral aspect. Scale: 1 mm. 44. Left mesofemur, apex, lateral aspect. 45. Terminal abdominal segments, lateral aspect. Scale: 5 mm.

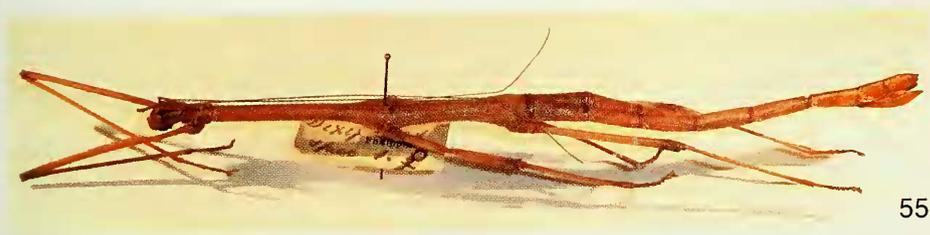


FIGS 46-53

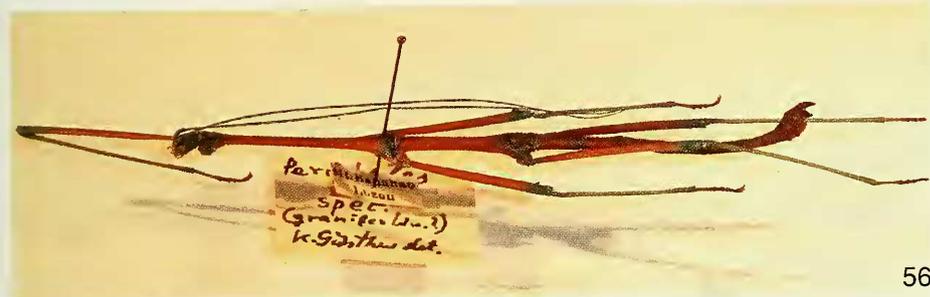
*Parapodacanthus hasenpuschorum* Brock gen. n., sp. n. Terminal abdominal segments. 46. ♂, lateral aspect. 47. ♂, dorsal aspect. 48. ♀, lateral aspect. 49. ♀, dorsal aspect. Scale: 5 mm. Egg. 50. Lateral aspect. 51. Dorsal aspect. 52. ♂. 53. ♀. Scale: 1 mm.



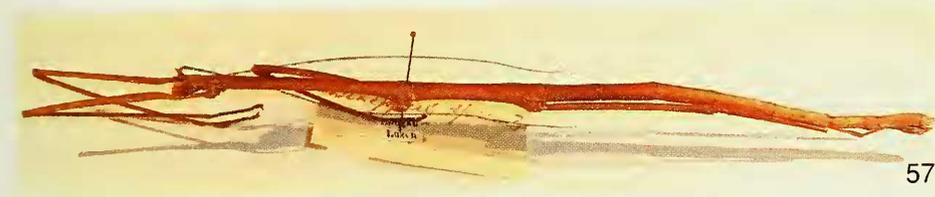
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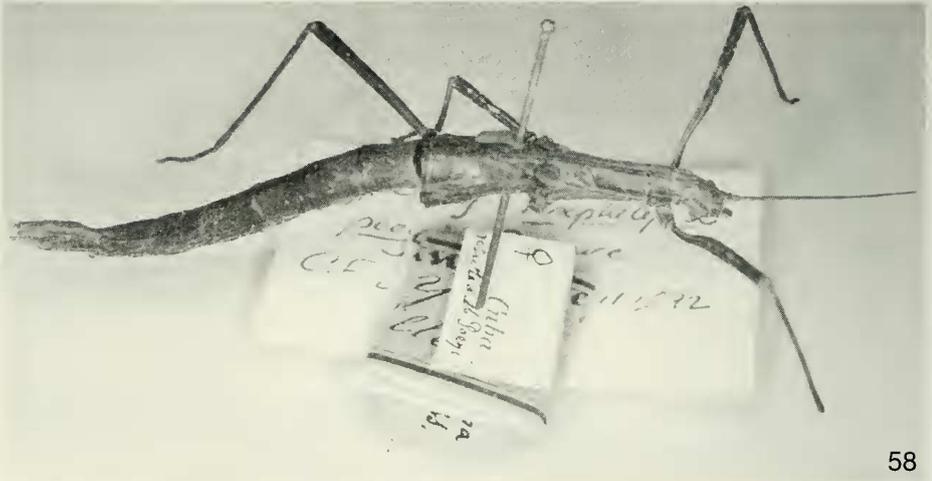
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FIGS 54-57

*Lonchodes putingmansa* Zompro sp. n. 54. HT, ♂. 55. PT, ♀. *Lonchodes magayon* Zompro sp. n. 56. HT, ♂. *Lonchodes dalawangsungay* Zompro sp. n. 57. HT, ♀.



FIGS 58-59

*Alloeophasma poeyi* (Saussure, 1868). 58. LT, ♀. 59. ♂, ST of *Pasma cubense* Saussure, 1868.



FIGS 60-62

*Parapodacanthus hasenpuschorum* Brock gen. n., sp. n. 60. ♂. 61. ♀. 62. Mating ♂ ♀.

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